MDX-C7890R

SERVICE MANUAL

AEP Model

Model Name Using Similar Mechanism	MDX-C7900R
Base Mechanism Type	MG-164KT-138
Optical Pick-Up Name	KMS-241A/J2N

SPECIFICATIONS

MD-Player

Signal-Rauschabstand	90 dB
Frequenzgang	10 – 20.000 Hz
Gleichlaufschwankungen	Unterhalb der Meßgrenze

Radio

UKW

Empfangsbereich	87,5 – 108,0 MHz
Antennenanschluß	Externer Antennenanschluß
Zwischenfrequenz	10,7 MHz
Nutzbare Empfindlichkeit	10 dBf
Trennschärfe	75 dB bei 400 kHz
Signal-Rauschabstand	62 dB (stereo), 65 dB (mono)
Harmonische Verzerrung	bei 1 kHz 0,9 % (stereo), 0,5 % (mono)
Kanaltrennung	35 dB bei 1 kHz
Frequenzgang	30 – 15.000 Hz
Gleichwellenselektion	2 dB

MW/LW

Empfangsbereich	MW: 531 – 1.602 kHz LW: 153 – 281 kHz
Antennenanschluß	Externer Antennenanschluß
Zwischenfrequenz	10,71 MHz/450 kHz
Empfindlichkeit	MW: 30 µV LW: 50 µV

Endverstärker

Ausgänge	Lautsprecherausgänge (versiegelte Anschlüsse)
Lautsprecherimpedanz	4 – 8 Ohm
Maximale Leistungsabgabe	40 W × 4 (an 4 Ohm)

Allgemeines

Ausgänge	Leitungsausgänge (1) Motorantennen-Steuerleitung Steuerleitung für Endverstärker
Klangregler	Bässe ±10 dB bei 100 Hz Höhen ±10 dB bei 10 kHz
Betriebsspannung	12 V Gleichstrom, Autobatterie (negative Erdung)
Abmessungen	ca. 178 × 50 × 184 mm (B/H/T)
Einbaumaß	ca. 182 × 53 × 162 mm (B/H/T)
Gewicht	ca. 1,2 kg
Mitgeliefertes Zubehör	Montageteile und Anschlußzubehör (1 Satz) Behälter für Frontplatte (1)

US- und Auslandspatente in Lizenz vergeben von der Dolby Laboratories Licensing Corporation.

Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.

FM/MW/LW MINIDISC PLAYER

MICROFILM

SONY®

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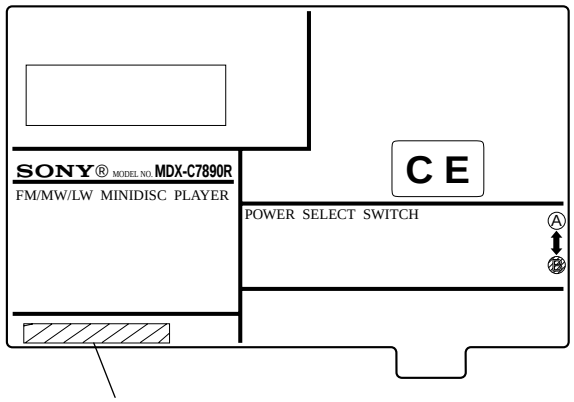
SECTION 1
SERVICING NOTES

• Model Identification

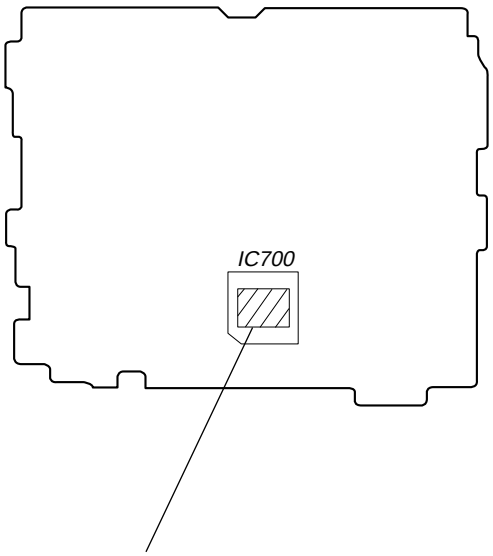
– Model Number Label –



3-023-589-01 (AEP: TYPE 2)
3-023-590-01 (AEP: TYPE 1)

• TYPE A/B Discrimination

[MAIN BOARD] (Component Side)



MB90574PFV-G-113-BND (TYPE A)
MB90F574PFV-G-113 (TYPE B)

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Laser Diode Properites
- Material: GaAlAs
- Wavelength: 780 nm
- Emission Duration: continuous
- Laser Output Power: less than 44.6 µW*

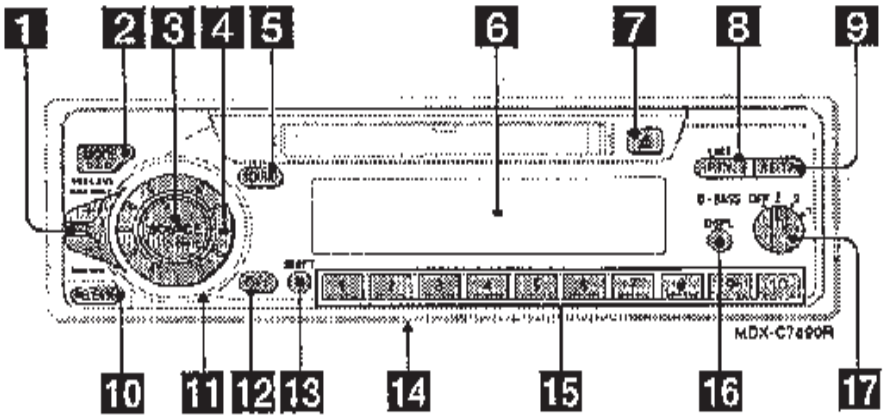
  * This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

This section is extracted from instruction manual.

Lage und Funktion der Teile und Bedienelemente



D

Näheres finden Sie auf den angegebenen Seiten.

1 Regler SEEK/AMS (Suchen/ Automatischer Musiksensor/Manuelle Suche) 8, 10, 12, 14, 19, 22

2 Taste MODE (Auswählen von Frequenzbereich/Gerät) 9, 10, 18, 21

3 Taste SOURCE (Auswählen der Tonquelle) 7, 9, 10, 18, 19, 21

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Vorbereitungen

Zurücksetzen des Geräts

Bevor Sie das Gerät zum ersten Mal benutzen oder nachdem Sie die Autobatterie ausgewechselt haben, müssen Sie das Gerät zurücksetzen.
Drücken Sie die Rücksetztaste mit einem spitzen Gegenstand, wie z. B. einem Kugelschreiber.

Rücksetztaste

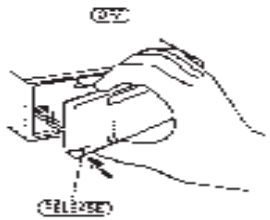
Hinweise
Wenn Sie die Rücksetztaste drücken, werden die eingestellte Uhrzeit und einige weitere gespeicherte Daten gelöscht.

Abnehmen der Frontplatte

Um einen Diebstahl des Geräts vorzubeugen, kann die Frontplatte abgenommen werden.

1 Drücken Sie (OFF).

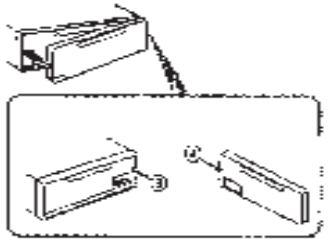
2 Lösen Sie mit (RELEASE) die Frontplatte. Stoßen Sie die Frontplatte dann ein wenig nach links, und nehmen Sie sie ab, indem Sie sie auf sich zu ziehen.



Hinweise
- Achten Sie darauf, daß die Frontplatte beim Abnehmen nicht beschädigt wird.
- Wenn Sie eine abgenommene Frontplatte bei eingeschaltetem Gerät die Taste (RELEASE) drücken, wird ein Gerät automatisch ausgeschaltet, um eine Beschädigung der Lautsprecher zu vermeiden.
- Bewahren Sie die Frontplatte beim Transportieren in mitgelieferten Behälter auf.

Anbringen der Frontplatte

Setzen Sie Teil ① der Frontplatte wie in der Abbildung dargestellt an Teil ⑥ des Geräts an, und drücken Sie die Frontplatte an, bis sie mit einem Klicken einrastet.



Hinweise
- Achten Sie beim Anbringen der Frontplatte darauf, daß sie richtig herum angebracht ist. Die Frontplatte kann nicht andersherum angebracht werden.
- Wenden Sie beim Festdrücken der Frontplatte keine Gewalt an. Drücken Sie nicht zu fest, um die Frontplatte am Gerät zu befestigen.
- Drücken Sie nicht stark auf die Displays an der Innenseite der Frontplatte.
- Schützen Sie die Frontplatte vor direkter Sonneneinstrahlung, von Wärmequellen wie Warmluftauslässen und vor Feuchtigkeit. Wenn das Fahrzeug in der Sonne geparkt ist, lassen Sie es nicht auf dem Armaturenbrett, da sich sonst eine Fehlfunktion ergeben kann.

Warnton

Wenn Sie den Zündschalter in die OFF-Position stellen, ohne die Frontplatte abzunehmen, ertönt ein Signalton. (Dieser Warnton kommt nur, wenn der Schalter POWER SELECT in der Position ⑧ steht.)

D D

Vorbereitungen

Anbringen des Aufklebers am Joystick

Sie können dieses Gerät mit einem gesondert erhältlichen Joystick (RM-X4S) steuern. Mit dem Joystick werden zahlreiche Aufkleber geliefert. Bringen Sie den Aufkleber an, der den Tasten dieses Geräts und der Montageposition des Joysticks entspricht. Wenn Sie den Joystick montiert haben, bringen Sie den Aufkleber wie unten abgebildet an.

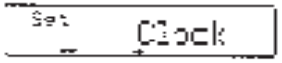
(nicht mitgeliefert)

Einstellen der Uhr

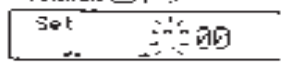
Die Uhr zeigt die Zeit digital im 24-Stunden-Format an.

Beispiel: Einstellen der Uhr auf 10:08

1 Drücken Sie (SHIFT) und dann ① (SET UP).



❶ Drücken Sie ⑤ (→).

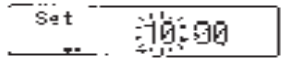


Die Stundenziffern blinken.

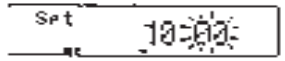
❷ Stellen Sie die Stunden ein.

rückwärts

vorwärts



❸ Drücken Sie ⑤ (→).

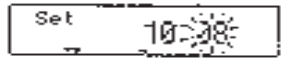


Die Minutenziffern blinken.

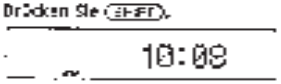
❹ Stellen Sie die Minuten ein.

rückwärts

vorwärts



2 Drücken Sie (SHIFT).



Die Uhr beginnt zu laufen.

3 Drücken Sie (SHIFT).
Wenn Sie die Einstellung vorgenommen haben, erscheint im Display wieder die Anzeige für den normalen Wiedergabemodus.

Hinweis
Steht der Schalter POWER SELECT an der Unterseite des Geräts auf ⑧, schalten Sie zuerst das Gerät aus, bevor Sie die Uhr ein-

Installation

Vorsichtsmaßnahmen

- Nehmen Sie an den Öffnungen an der Oberseite des Geräts keine Einstellungen vor. Diese Öffnungen dienen dem Ton- oder Abgleich, der Abgleich darf nur von einer Fachkraft vorgenommen werden.
- Wählen Sie den Einbauort so aus, daß das Gerät vor Betrug, Erschütterungen und Staub
- Bei Einbau des Geräts an einem Ort, an dem keine hohen Temperaturen (Heizung, direkte Sonneneinstrahlung, starker Warmluftstrom von der Heizung), keinem Staub, keine Schmutz- und keinen starken Vibrationen ausgesetzt ist.
- Für eine sichere Befestigung verwenden Sie stets nur die mitgelieferten Montageteile.

Hinweis zum Montagewinkel

Der Gerät sollte in einem Winkel von weniger als 25° montiert werden.

Installation

Précautions

- Ne pas toucher les quatre orifices sur le panneau supérieur de l'appareil. Ils servent aux réglages du tuner qui ne doivent être effectués que par un technicien.
- Choisir soigneusement l'emplacement de l'installation, pour que l'appareil ne gêne pas la conduite.
- Éviter d'installer l'appareil dans un endroit exposé à des températures élevées, comme en plein soleil ou à proximité d'une bouche d'air chaud, ou à de la poussière, saleté ou vibrations excessives.
- Pour garantir un montage sûr, n'utiliser que le matériel fourni.

Réglage de l'angle de montage

Ajuster l'inclinaison à un angle inférieur à 25°.

Installazione

Precauzioni

- Non toccare i quattro fori sulla superficie superiore dell'apparecchio. Servono per regolazioni del sintonizzatore che devono essere eseguite solo da tecnici per la manutenzione.
- Scegliere con attenzione il luogo di montaggio in modo che l'apparecchio non interferisca con le operazioni di guida dei conducenti.
- Evitare di installare l'apparecchio dove sia soggetto ad alte temperature, come alla luce solare diretta o vicino a getti di aria calda dell'impianto di riscaldamento, o dove possa essere soggetto a polvere, sporco e vibrazioni eccessive.
- Usare solo il materiale di montaggio in dotazione per un'installazione stabile e sicura.

Regolazione dell'angolo di montaggio

Regolare l'angolo di montaggio in modo che sia inferiore a 25°.

Abnehmen und Anbringen der Frontplatte

Nehmen Sie die Frontplatte vor dem Einbau des Geräts ab.

Abnehmen A

Drücken Sie zuerst (OFF), um das Gerät auszuschalten. Zum Lösen der Frontplatte drücken Sie diese (RELEASE), schieben die Frontplatte ein wenig nach links und ziehen sie anschließend horizontal

Anbringen B

Richten Sie die Zapfen ② an den Löchern ③ aus, und drücken Sie die Frontplatte fest, so daß sie mit einem Klick einrastet.

Retrait et pose de la façade

Avant d'installer l'appareil, déposer la façade.

Retrait A

Avant de détacher la façade, appuyer sur (OFF) pour arrêter l'appareil. Ensuite, appuyer sur (RELEASE), pousser la façade légèrement vers la gauche et tirer vers soi pour l'enlever

Pose B

Aligner les points ② et ③, puis pousser l'appareil jusqu'au déclic.

Come rimuovere e reinserire il pannello anteriore

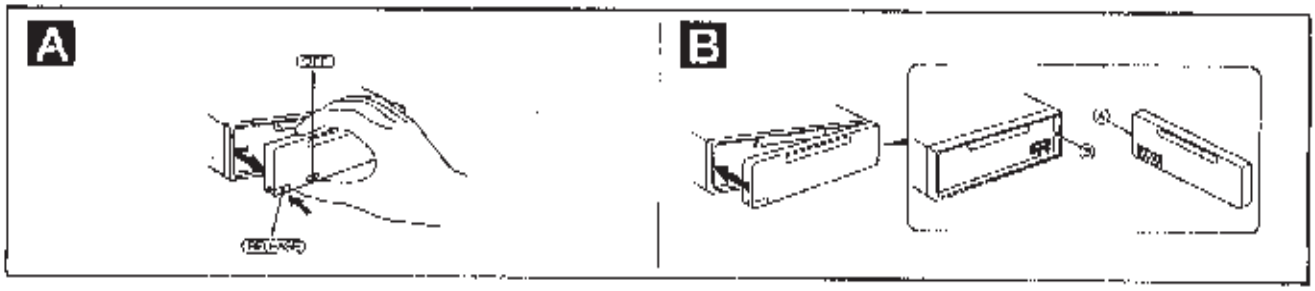
Prima di installare l'apparecchio rimuovere il pannello anteriore.

Per rimuoverlo A

Prima di togliere il pannello anteriore, premere (OFF) e spegnere l'apparecchio. Quindi premere (RELEASE), spingere leggermente il pannello verso sinistra e tirarlo verso di sé

Per reinserirlo B

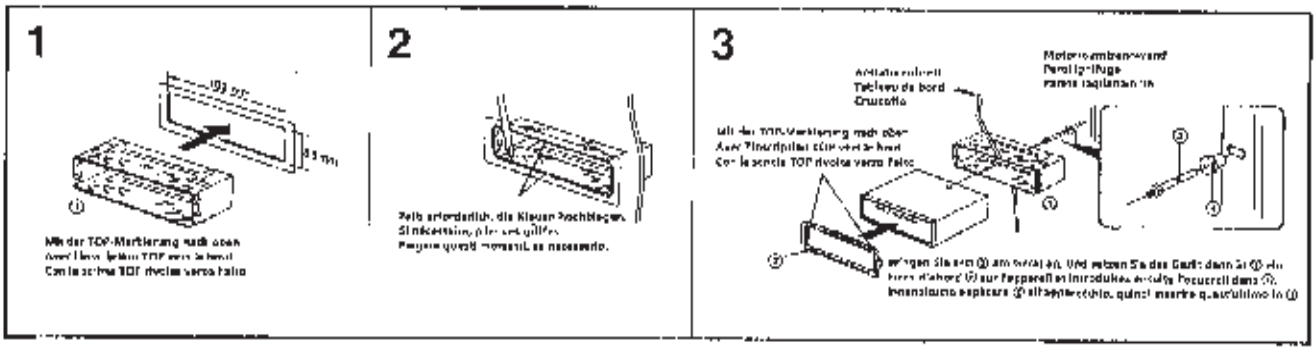
Allineare le parti ② e ③ e spingere il pannello anteriore fino a udire uno scatto.



Installation im Armaturenbrett

Installation dans le tableau de bord

Installazione nel cruscotto



Anschluß

Vorsicht

- Dieses Gerät ist ausschließlich für eine negative Erde des 12-V-Autobordnetzes bestimmt.
- Verbinden Sie Kabel (9) mit Netzunterbrechungsrelais mit dem Gerät und der Zündsicherung bevor Sie es mit dem Hi-fi-Steuergerät verbinden.
- Schließen Sie alle Erdungskabel an einen gemeinsamen Massepunkt an.
- Schließen Sie das gelbe Kabel an einen freien Autobordkreis mit höherer Leistung als der der Gerätesicherung an. Wenn Sie dieses Gerät zusammen mit anderen Stereokomponenten installieren, muß der Autobordkreis, an den die Geräte angeschlossen sind, eine höhere Leistung aufweisen als die Summe der Sicherungen der einzelnen Komponenten. Wenn beim Austausch einer Sicherung die Leistung auf weniger als die Sicherung des Geräts, die Sie dem Gerät direkt an die Batterie an. Wenn kein Autobordkreis zum Anschluß eines dieser Geräte frei ist, schließen Sie es an einen Autobordkreis mit höherer Leistung als der der Geräte an, und zwar an, daß keine anderen Stromkreise unterbrochen werden, wenn die Sicherung durchbrennen sollte.

Wenn das Zündschloß Ihres Wagens keine Position I bzw. ACC besitzt POWER SELECT-Schalter

Das Gerät ist werkseitig so vorgestellt, daß das Bedienfeld auch dann bedienbar ist, wenn das Gerät nicht bei laufendem Motor. Besitzt das Zündschloß Ihres Fahrzeugs keine Position I bzw. ACC, so ist die Betriebsanzeige ständig eingeschaltet und entlädt die Batterie. Stellen Sie in diesem Fall den POWER SELECT-Schalter an der Unterseite des Geräts auf Position ⓪, und drücken Sie dann die Rücksetztaste. Bei ausgeschaltetem Gerät ist das Bedienfeld dann nicht mehr bedienbar.

Hinweis
Der Wert für die Autobatterie wird nicht, und die Anzeige CLK wird nicht abgerufen, wenn der POWER SELECT-Schalter auf Position ⓪ gestellt ist.

Si l'appareil est utilisé dans une voiture dont la clé de contact n'a pas de position accessoires

— Interrupteur POWER SELECT

L'électronique est prévue avant tout pour être utilisée à l'intérieur même quand l'appareil ne fonctionne pas. Cependant, ce réglage risque d'épuiser la batterie si l'appareil est utilisé dans une voiture dont la clé de contact ne possède pas de position accessoires. Pour éviter d'épuiser la batterie, régler l'interrupteur POWER SELECT sur le côté de l'appareil sur la position ⓪, puis appuyer sur la touche de réinitialisation. L'écran reste alors éteint pour éviter de s'user quand l'appareil n'est pas utilisé.

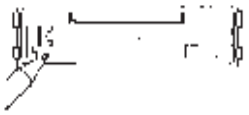
Remarque
Quand l'interrupteur POWER SELECT est réglé sur la position ⓪, l'horloge n'est pas affichée quand on allume l'appareil.

Rücksetztaste

Nach der Installation und dem Anschluß muß die Rücksetztaste mit einem Kugelschreiber o.ä. gedrückt werden.

Touche de réinitialisation

Quand l'installation et les connexions sont terminées, appuyer sur la touche de réinitialisation avec un stylo bille ou un objet pointu.



Hinweise zum Anschlußbeispiel

Hinweis zu den Steuerleitungen
Die (blaue) Antennensteuerung Ihres Geräts liefert eine Gleichspannung von +12 V, wenn der Tuner eingeschaltet ist. Ist Ihr Fahrzeug entweder mit Frequenz- oder mit DX-Funktion (Distant Sensitivity) ausgestattet, ...

Zur Stromversorgung des Speichers
Wenn das gelbe Stromversorgungskabel angeschlossen ist, wird der Speicherinhalt auch bei ausgeschalteter Zündung, ...

Hinweise zum Lautsprecheranschluß
- *Schalten Sie das Gerät aus, bevor Sie die Leitungen verbinden.*
- *Verwenden Sie Lautsprecher mit einer Impedanz von mehr als 4 Ohm und achten Sie darauf, daß positive und negative Leitungen nicht miteinander verbinden.*
- *Verbinden Sie die Lautsprecherleitungen nicht mit der Fahrzeugkarosserie, und verbinden Sie auch nicht die negativen Lautsprecherleitungen miteinander.*
- *Vermeiden Sie es, Lautsprecher parallel anzuschließen.*
- *An die Lautsprecherausgänge dieses Geräts dürfen nur Passivlautsprecher angeschlossen werden. Schließen Sie keine Aktivlautsprecher (d. h. Lautsprecher mit eingebauten Verstärkern) an, da diese sonst beschädigt werden können.*

Warnung
Wenn Sie eine Antennenstange ohne Antennenkabel verwenden, kann durch Anschließen dieses Geräts mit Hilfe des mitgelieferten Antennenadapterkabels die Empfangsleistung stark beeinträchtigt werden.

Remarques sur l'exemple de connexion

Remarque sur les fils de commande
Le fil de commande de l'antenne électrique (bleu) délivre un courant continu de +12 V quand le tuner est allumé ou quand la fonction AF (Fréquences alternatives) ou TA (Info routière) de votre autoradio est activée.

Connexion dans le compartiment de la mémoire
Lorsque le fil jaune d'alimentation permanente est connecté, le contenu de la mémoire est alimenté en permanence même si la clé de contact est sur la position arrêt.

Remarques sur le câble connecteur des haut-parleurs
- *Avant de raccorder les haut-parleurs, mettez l'appareil hors tension.*
- *Utilisez des haut-parleurs ayant une impédance de 4 Ω à ohms et une capacité adéquate suffisante pour les endommager.*
- *Ne pas raccorder les fils du système de haut-parleurs au châssis de la voiture ni ne pas raccorder les bornes du haut-parleur droit à celles du haut-parleur gauche.*
- *Ne pas brancher de combiné des haut-parleurs en parallèle.*
- *Ne pas raccorder d'enceintes actives aux bornes amplificateurs de haut-parleurs de votre appareil. Ne pas brancher d'enceintes actives (avec amplificateurs incorporés) aux bornes des haut-parleurs, car cela risque d'endommager l'appareil.*

Avertissement
Si vous n'utilisez pas d'une antenne électrique avec cordon de raccordement, la connexion de cet appareil au véhicule via le cordon d'alimentation fourni (9) risque d'endommager l'antenne.

Pulsante di azzeramento

Dopo aver completato l'installazione e i collegamenti, premere con il polpastrello il pulsante di azzeramento con la punta di una penna a sfera ecc.

Note sui collegamenti

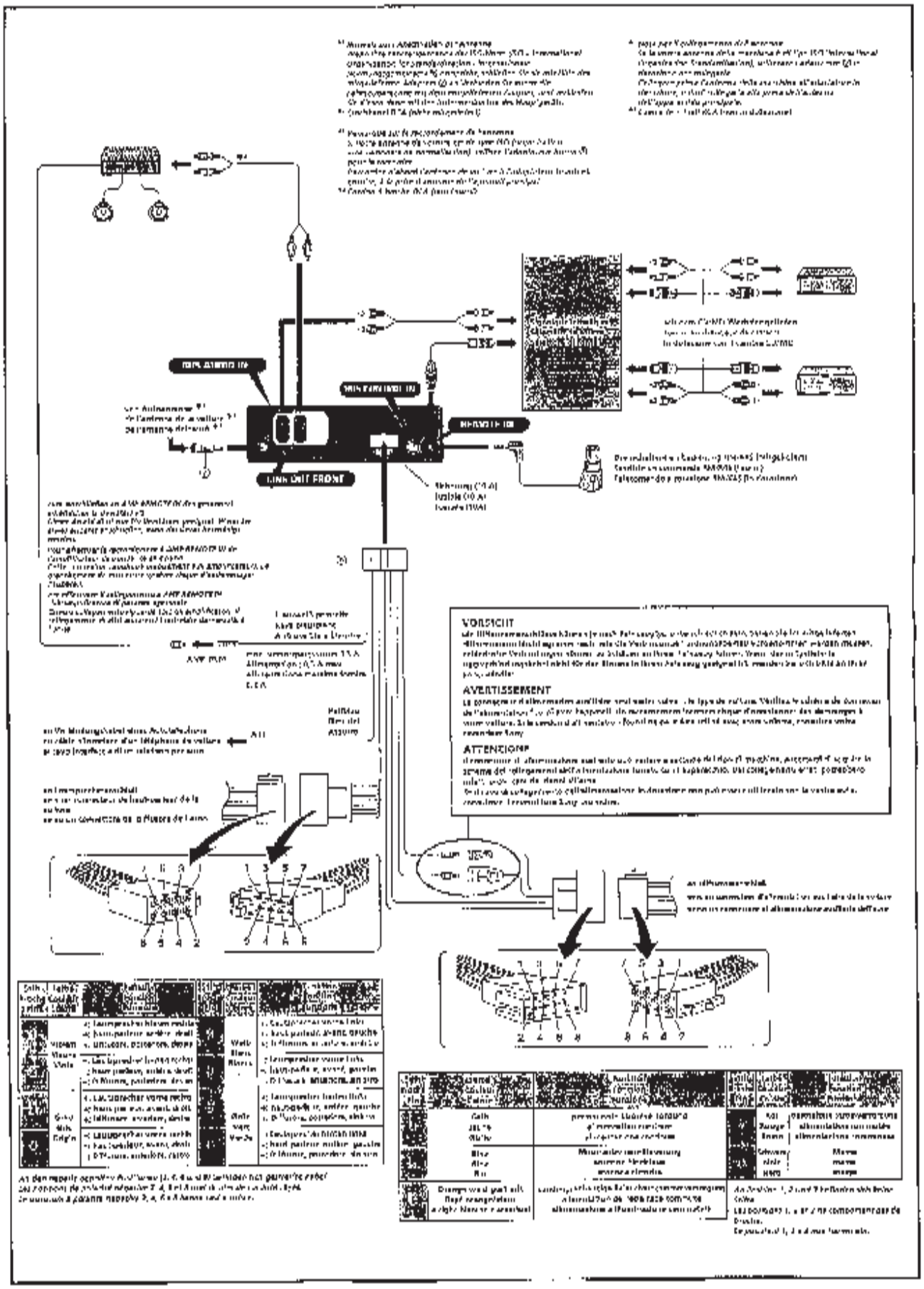
Note sul cavo di collegamento
Il cavo di comando dell'antenna elettrica (blu) fornisce CC +12 V quando il ricevitore è acceso o quando è attiva la funzione AF (frequenze alternative) o la funzione TA (traffico) del ricevitore.

Collegamento per la conservazione della memoria
Quando il cavo di giallo alimentazione giallo è collegato, viene sempre fornita l'alimentazione al contenuto di memoria anche quando la chiavetta di accensione è spenta.

Note sui collegamenti dei diffusori
- *Prima di collegare i diffusori spegnere l'apparecchio.*
- *Usare diffusori di impedenza superiore a 4 ohm e con capacità di potenza adeguata sufficiente a non farli danneggiare.*
- *Non collegare i conduttori del sistema diffusori del telaio dell'auto e non collegare i terminali negativi dei diffusori destro e sinistro insieme.*
- *Non collegare i diffusori in parallelo.*
- *Non collegare altri diffusori attivi (con amplificatore incorporato) ai terminali dell'uscita dell'apparecchio perché questo può danneggiare l'unità. Altrimenti collegare diffusori passivi a questi terminali.*

Avvertenza
Quando si collega l'apparecchio con l'uso di un'antenna non elettrica (...), la corrente di consumo della batteria può causare seri danni.

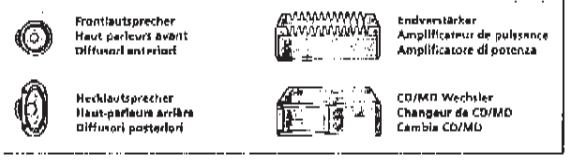
Anschlußbeispiel | Connexions de l'exemple | Esempi di collegamento

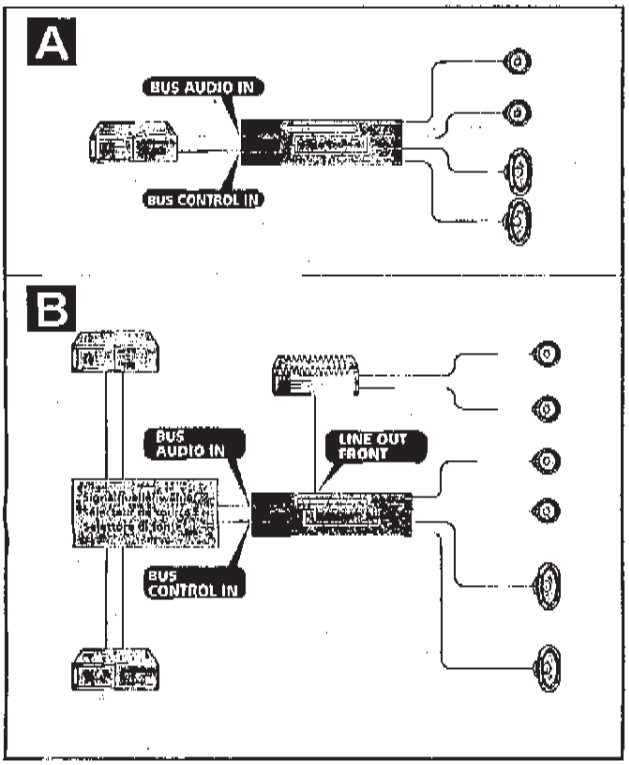


Anschlußdiagramm
Schémas de connexion
Schema di collegamento

Zum Anschließen von zwei oder mehr Geräten wird der gesondert erhältliche Signalquellenwähler XA-C30 benötigt.
Dans le cas du raccordement de deux appareils ou plus, le sélecteur de source XA-C30 (option) est indispensable.
Per collegare due o più apparecchi, si deve utilizzare il selettore di fonte XA-C30 (opzionale).

In Abbildungen dargestellte Geräte (nicht mitgeliefert)
Appareils utilisés dans les illustrations (non fournis)
Apparecchio utilizzato nelle illustrazioni (non in dotazione)

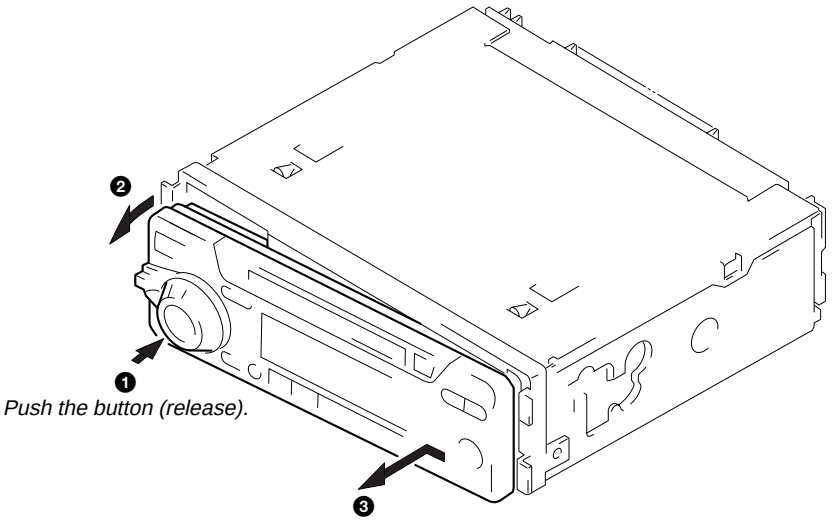




SECTION 3
DISASSEMBLY

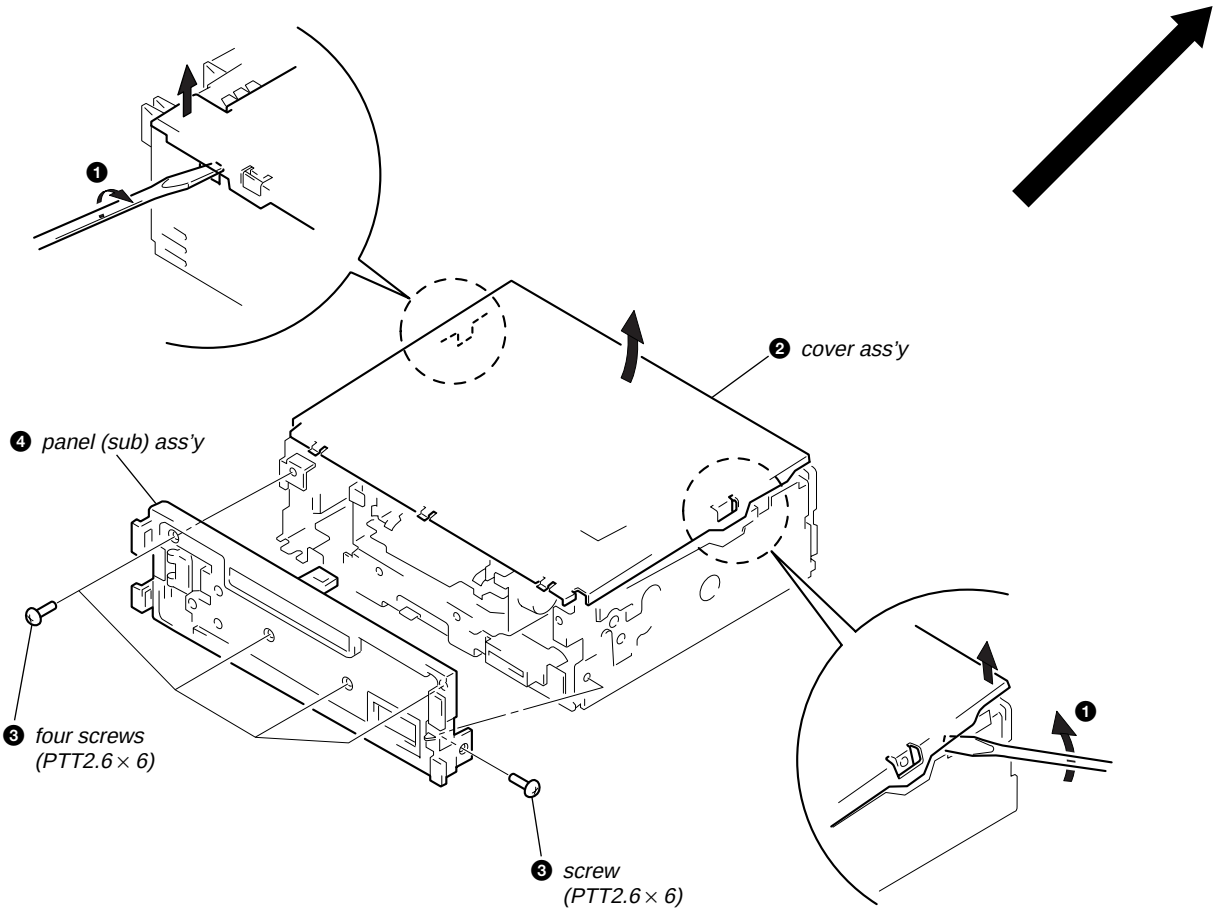
Note: Follow the disassembly procedure in the numerical order given.

FRONT PANEL

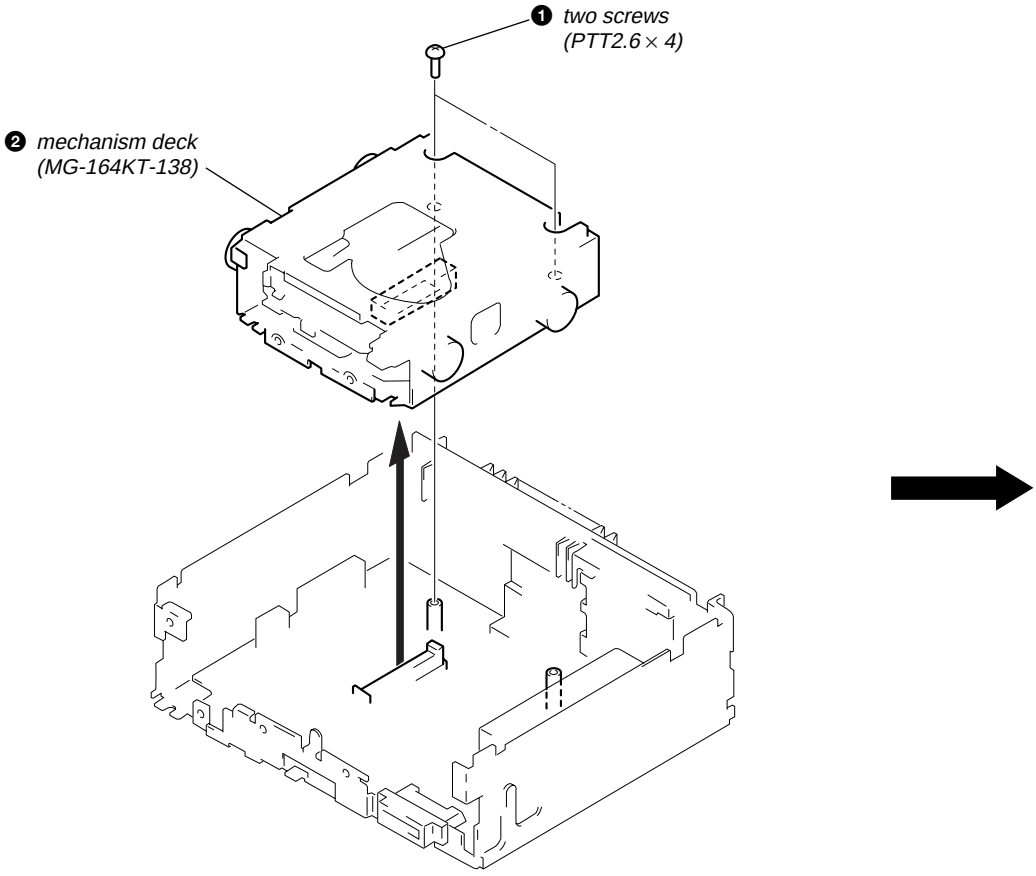


Remove the front panel of the arrow.

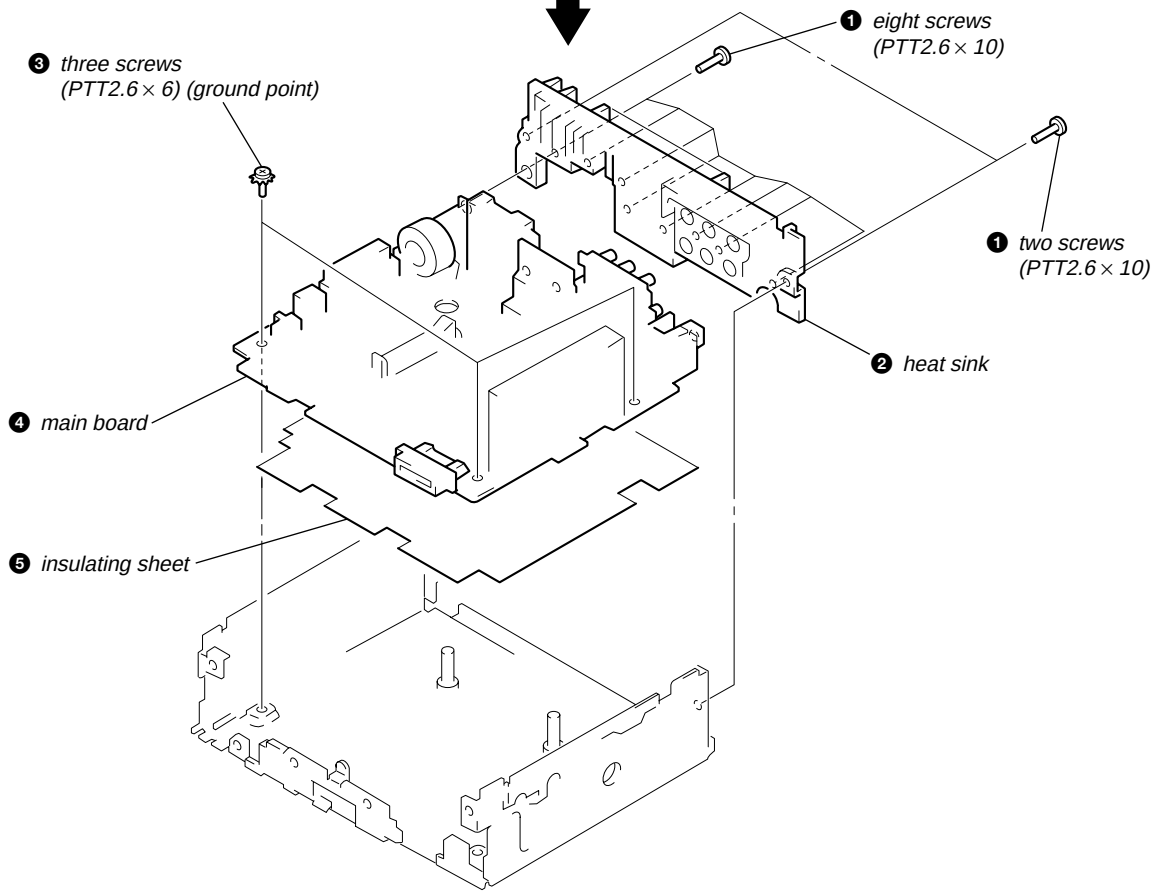
COVER ASS'Y, PANEL (SUB) ASS'Y



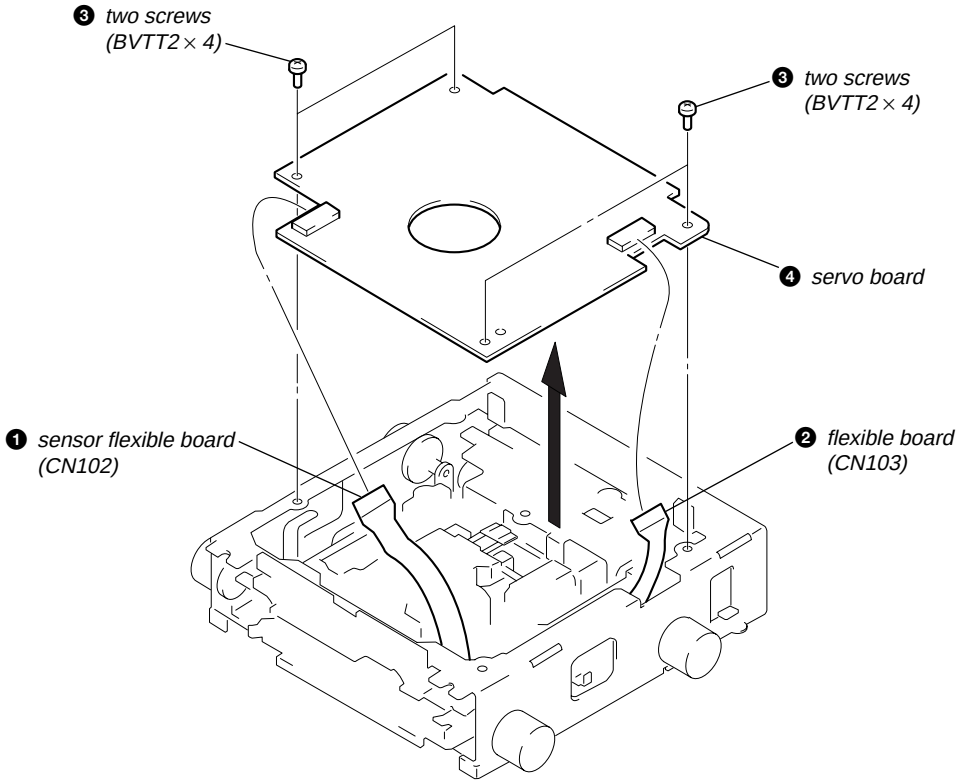
MECHANISM DECK (MG-164KT-138)



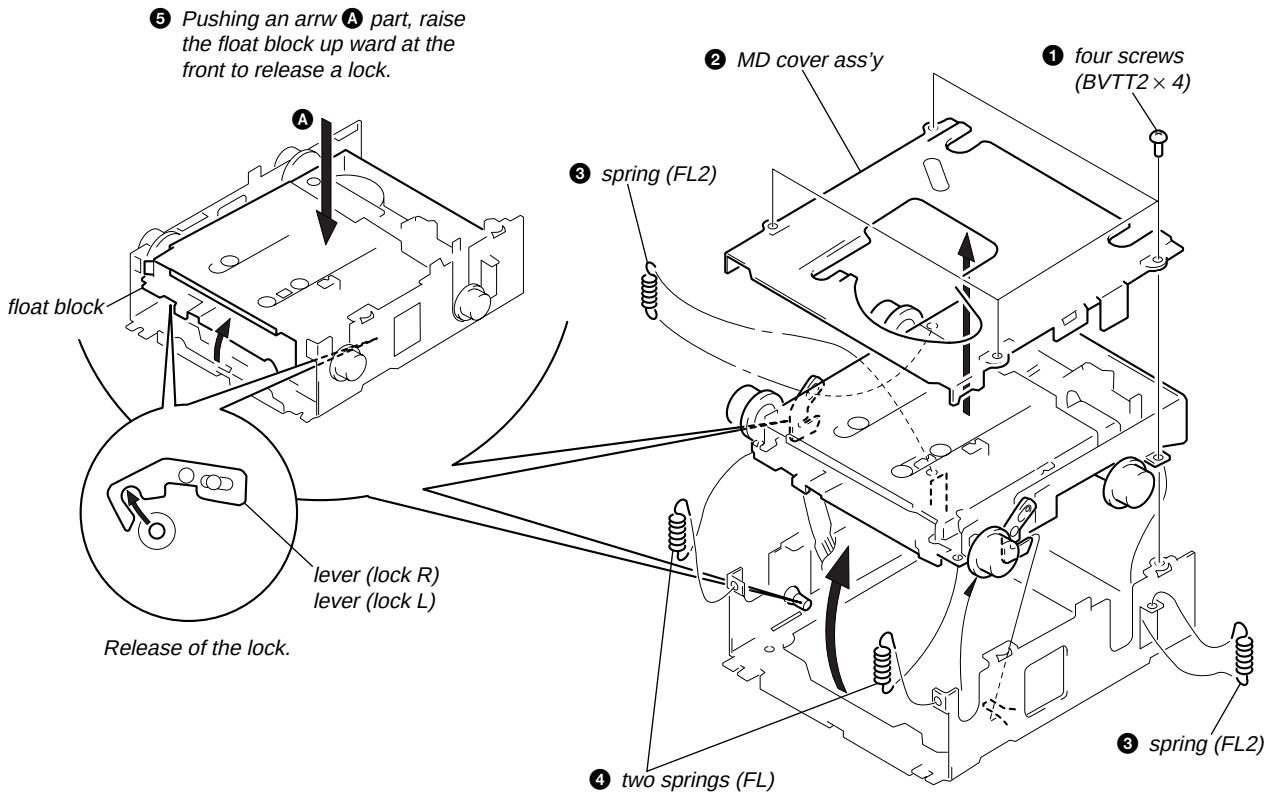
MAIN BOARD



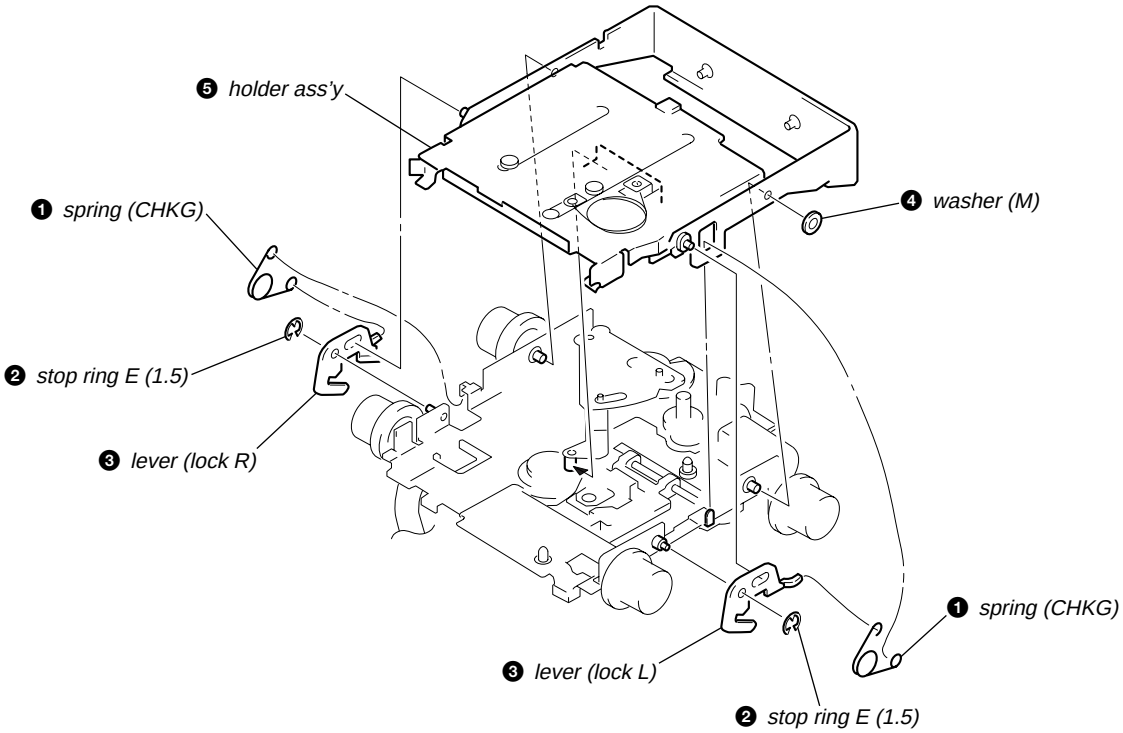
SERVO BOARD



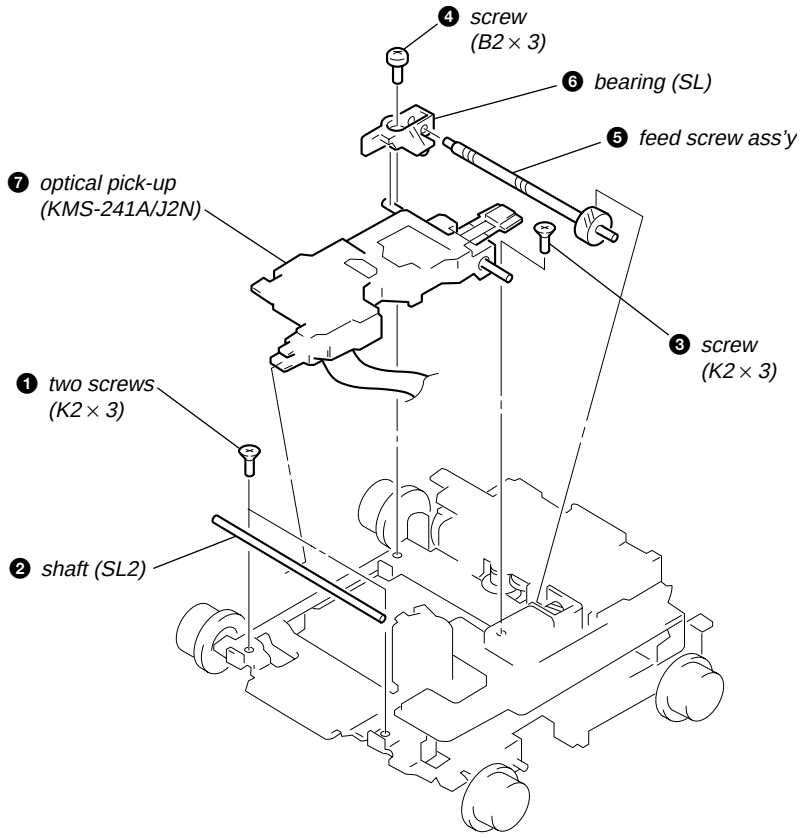
FLOAT BLOCK


❺ Pushing an arrw Ⓐ part, raise the float block up ward at the front to release a lock.
Ⓐ
float block
lever (lock R)
lever (lock L)
Release of the lock.
❷ MD cover ass'y
❶ four screws (BVTT2 × 4)
❸ spring (FL2)
❸ spring (FL2)
❹ two springs (FL)

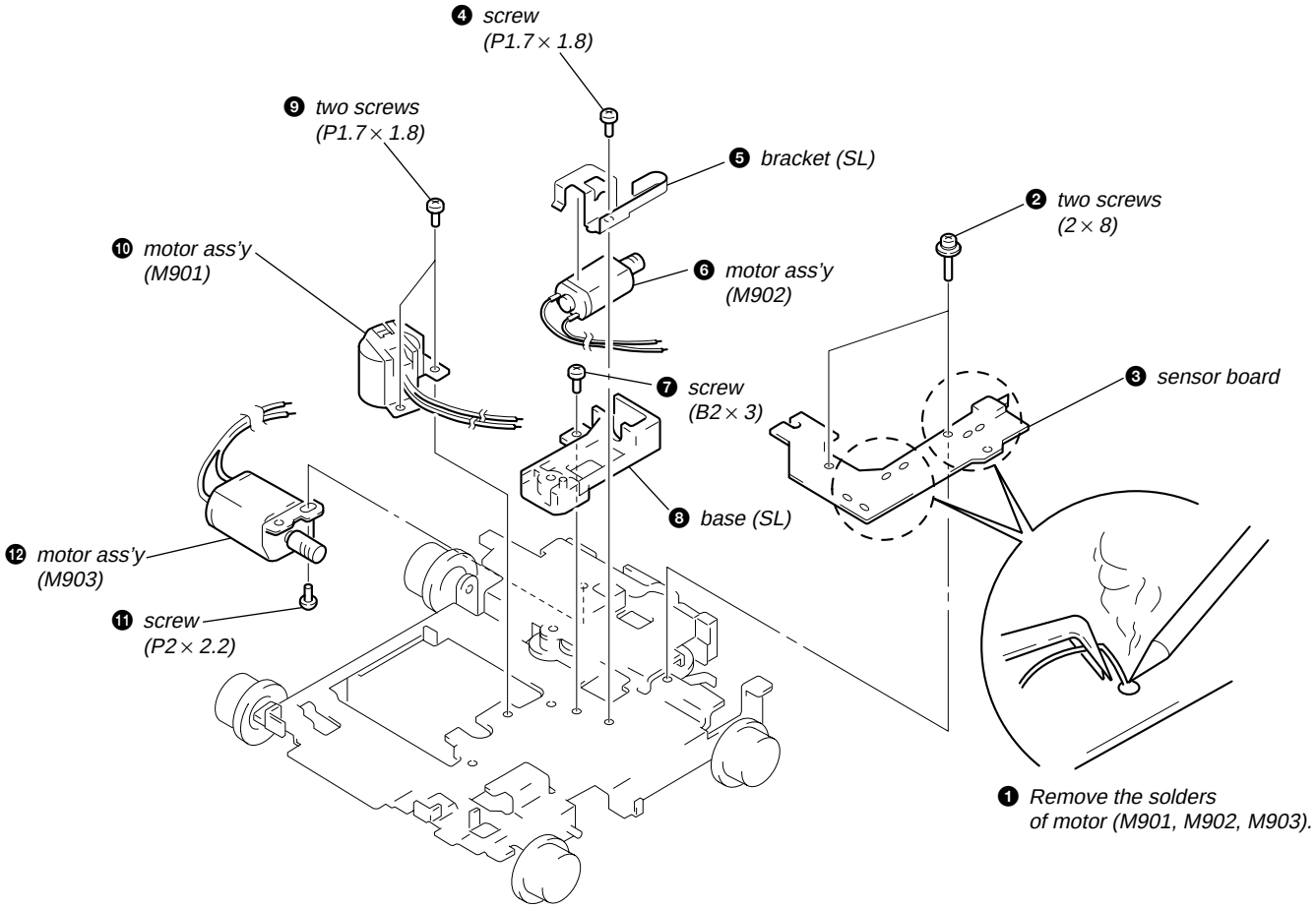
HOLDER ASS'Y



OPTICAL PICK-UP (KMS-241A/J2N)



MOTOR ASS'Y (M901, M902, M903), SENSOR BOARD



SECTION 4
ELECTRICAL ADJUSTMENTS

TEST MODE

This set have the test mode function. In the test mode, FM Auto Scan/Stop Level and MW Auto Scan/Stop Level adjustments can be performed easier than it in ordinary procedure.

<Set the Test Mode>

1. Set the "power select" switch (S700) is "A (ON) " position.
2. Turn ON the regulated power supply. (All LEDs on the set lights up, and the clock is displayed.)
   Note:
   Press the [OFF] button, if the clock is not displayed.
3. Push the preset [4] button.
4. Push the preset [5] button.
5. Press the preset [1] button for more than two seconds.
6. Then the display indicates all lights, the test mode is set.

<Release the Test mode>

1. Push the [OFF] button.
2. Return the "power select" switch (S700) to initially set position.

See the adjustment location from on page 16 for the adjustment.

MD SECTION

MD section adjustments are done automatically in this set.

TUNER SECTION

0 dB=1 µV

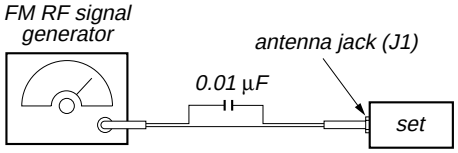
Cautions during repair
When the tuner unit is defective, replace it by a new one because its internal block is difficult to repair.

Note:
Adjust the tuner section in the sequence shown below.
1. FM Auto Scan/Stop Level Adjustment.
2. FM Stereo Separation Adjustment.
3. MW Auto Scan/stop Level Adjustment.
4. RDS S-Meter Adjustment.

FM Auto Scan/Stop Level Adjustment

Setting:

[SOURCE] button: FM



Carrier frequency : 98.0 MHz
Output level : 22 dB (12.6 µV)
Mode : mono
Modulation : 1 kHz, 22.5 kHz deviation (30%)

Procedure:

1. Set to the test mode.
2. Push the [SOURCE] button and set to FM.

Display

3. Adjust with the volume RV2 on TU1 so that the "FM" indication turns to "FM0" indication on the display window.
   But, in case of already indicated "FM0", turn the RV2 so that put out light "0" indication and adjustment.

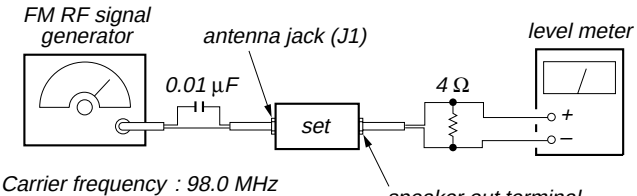
Display

Adjustment Location: See page 16.

FM Stereo Separation Adjustment

Setting:

[SOURCE] button: FM



Carrier frequency : 98.0 MHz
Output level : 70 dB (3.2 mV)
Mode : stereo
Modulation : main: 1 kHz, 33.75 kHz deviation (45%)
sub: 1 kHz, 33.75 kHz deviation (45%)
19 kHz pilot: 7.5 kHz deviation (10%)

Procedure:

FM Stereo signal generator output channel	Level meter connection	Level meter reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV4 on TU1 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV4 on TU1 for minimum reading.

L-CH Stereo separation: Ⓐ-Ⓑ
R-CH Stereo separation: Ⓒ-Ⓓ
The separations of both channels should be equal.

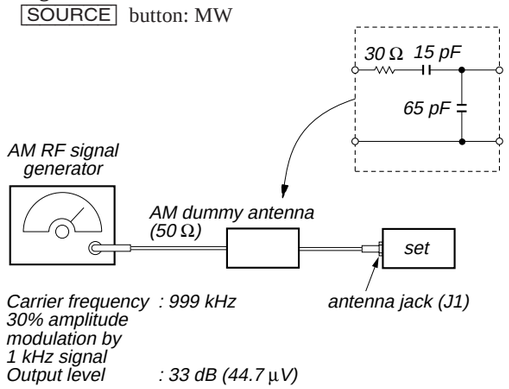
Specification: Separation more than 30 dB

Adjustment Location: See page 16.

MW Auto Scan/Stop Level Adjustment

Setting:

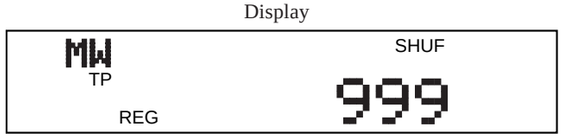
SOURCE button: MW


30 Ω 15 pF
65 pF
AM RF signal generator
AM dummy antenna (50 Ω)
set
Carrier frequency : 999 kHz
30% amplitude modulation by 1 kHz signal
Output level : 33 dB (44.7 µV)
antenna jack (J1)

Procedure:

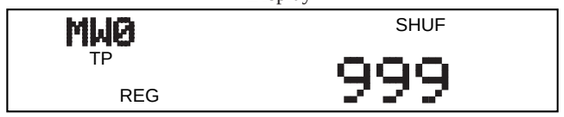
1. Set to the test mode. (See page 14.)
2. Push the SOURCE button and set to FM.
3. Push the MODE button and set to MW .

Display



4. Adjust with the volume RV1 on TU1 so that the “MW” indication turns to “MW0” indication on the display window. But, in case of already indicated “MW0”, turn the RV1 so that put out light “0” indication and adjustment.

Display

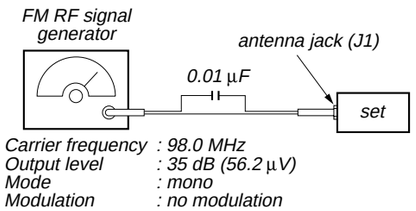


Adjustment Location: See page 16.

RDS S-Meter Adjustment

Setting:

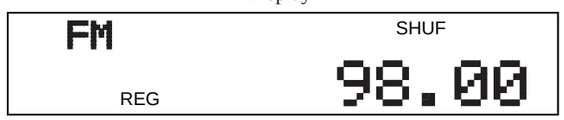
SOURCE button: FM



Procedure:

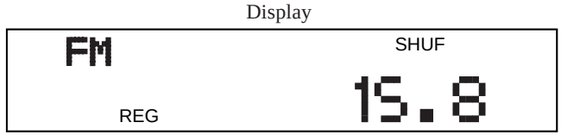
1. Set to the test mode. (See page 14.)
2. Push the SOURCE button and set to FM.

Display



3. Push the preset 10 button.
4. Adjust RV1 on MAIN board so that the display indication is “15.8”.

Display

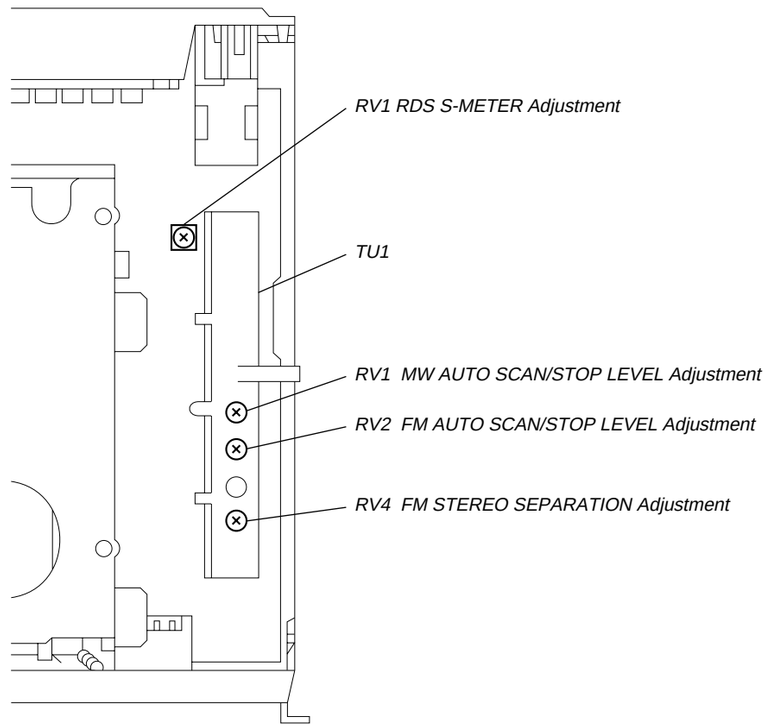


Specification: Display indication : 15.6 to 16.4

Adjustment Location: See page 16.

Adjustment Location:

– SET UPPER VIEW –

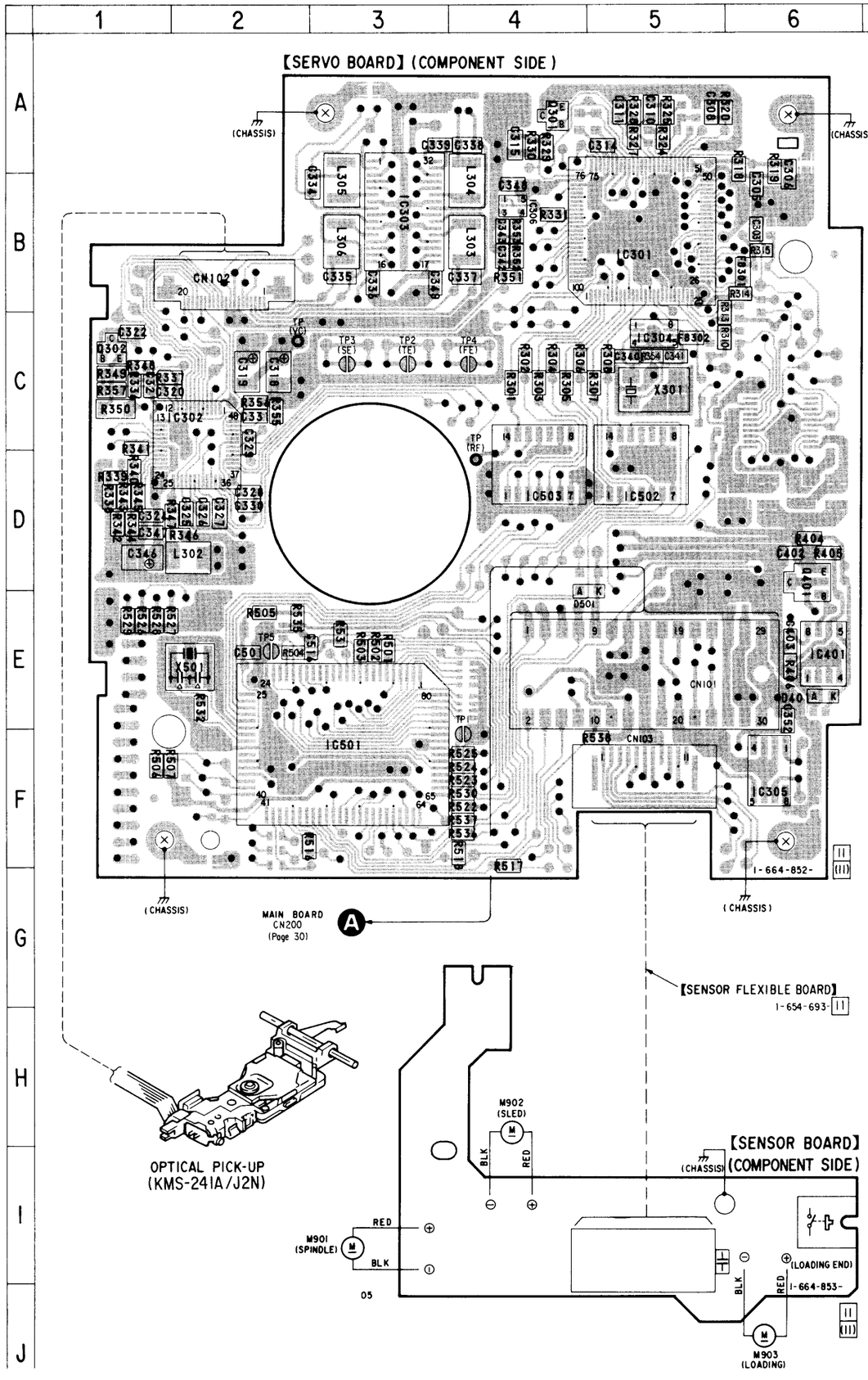

RV1 RDS S-METER Adjustment
TU1
RV1 MW AUTO SCAN/STOP LEVEL Adjustment
RV2 FM AUTO SCAN/STOP LEVEL Adjustment
RV4 FM STEREO SEPARATION Adjustment

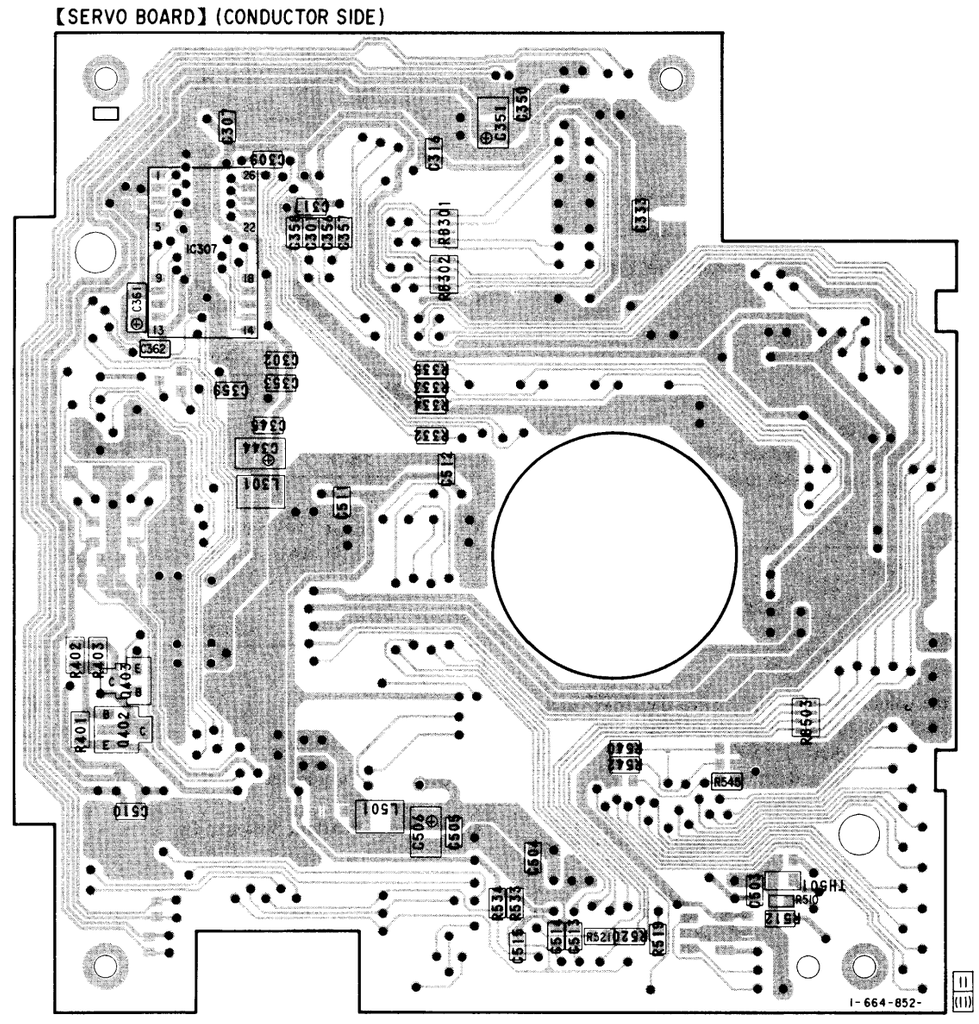
SECTION 5
DIAGRAMS

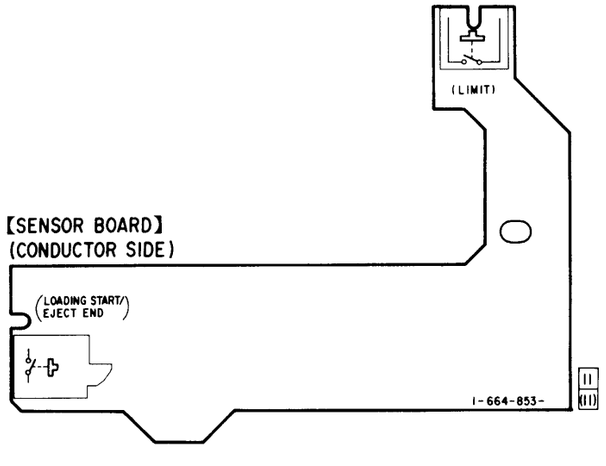
5-1. PRINTED WIRING BOARDS – MECHANISM DECK Section –

• **Semiconductor Location**

Ref. No.	Location
D401	E-6
D501	E-4
IC301	B-5
IC302	C-2
IC303	B-3
IC304	C-5
IC305	F-6
IC306	B-4
IC307	B-8
IC401	E-6
IC501	F-3
IC502	D-5
IC503	D-4
Q301	A-4
Q302	C-1
Q401	D-6
Q402	E-7
Q403	E-7







Note on Printed Wiring Boards:
- ● : Through hole.
- △ : internal component.
- ▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

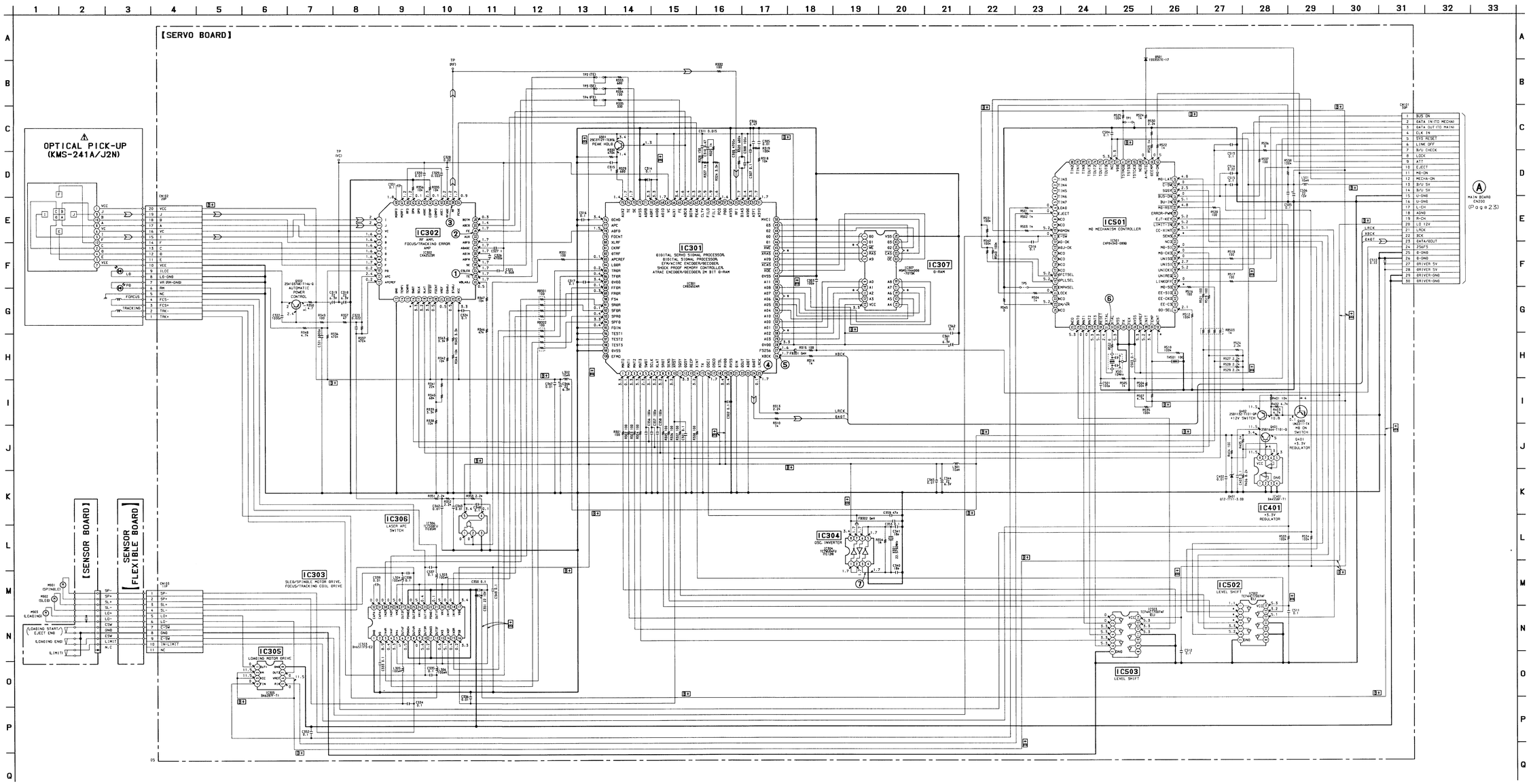
Note on Schematic Diagram:
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- B+ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : MD
  * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ▷ : MD

5-2. SCHEMATIC DIAGRAM – MECHANISM DECK Section –

• See page 35 for IC Block Diagrams • See Page 41 for Waveforms.

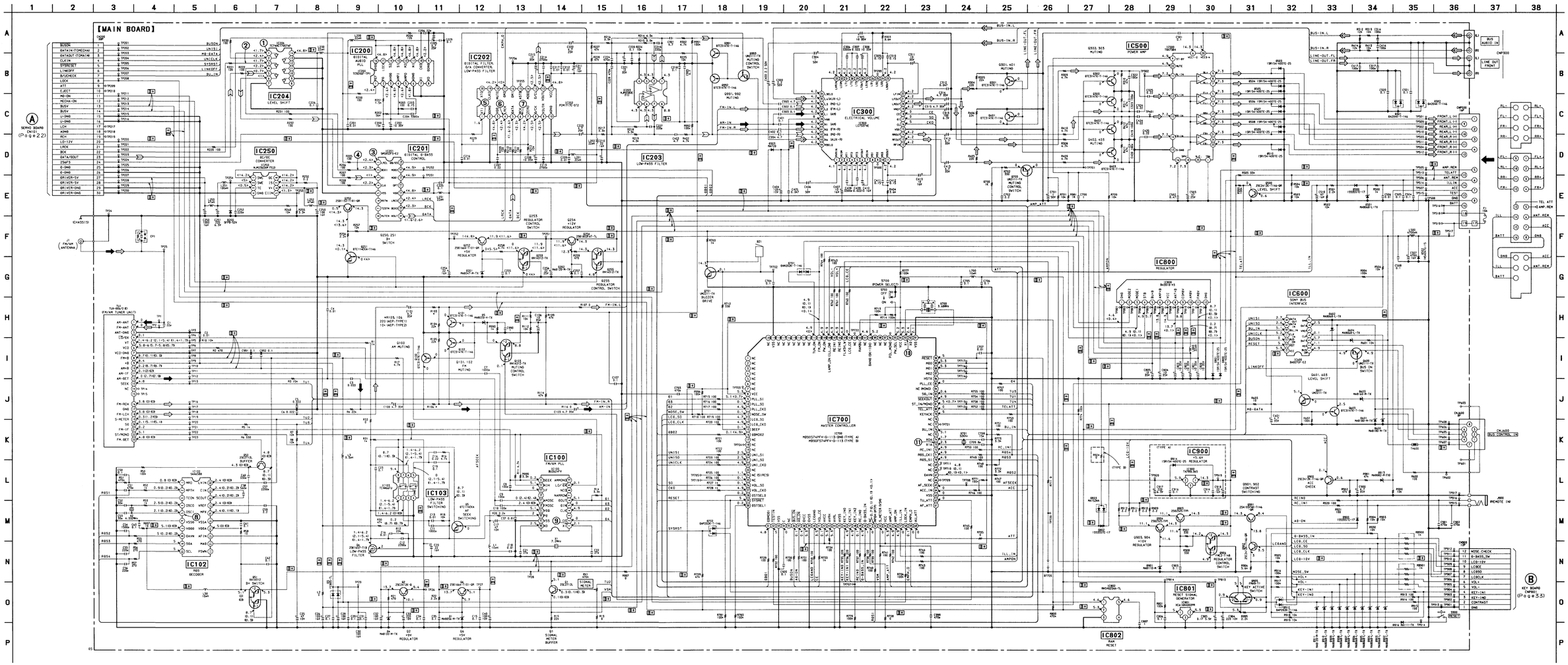

【SERVO BOARD】
⚠ OPTICAL PICK-UP (KMS-241A/J2N)
【SENSOR BOARD】
SENSOR 【FLEXIBLE BOARD】
IC301 DIGITAL SERVO SIGNAL PROCESSOR, DIGITAL SIGNAL PROCESSOR, EFM+ACIRC ENCODER/RECODER, SHOCK PROOF MEMORY CONTROLLER, ATRAC ENCODER/RECODER,2M BIT D-RAM
IC302 RF AMP, FOCUS/TRACKING ERROR AMP
IC303 SLED/SPINDLE MOTOR DRIVE, FOCUS/TRACKING COIL DRIVE
IC304 OSC. INVERTER
IC305 LOADING MOTOR DRIVE
IC306 LASER APC SWITCH
IC307 D-RAM
IC401 +5.3V REGULATOR
IC501 MD MECHANISM CONTROLLER
IC502 LEVEL SHIFT
IC503 LEVEL SHIFT
MAIN BOARD CN200 (Page 23)

Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF
  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.
- B+ : B+ Line.
- ▬ : adjustment for repair.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : MW
  (( )) : LW
  < > : MD
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : MW
  ⇨ : MD
  ⇨ : BUS AUDIO IN

5-3. SCHEMATIC DIAGRAM – MAIN Section –

• See page 2 for Model Identification, TYPE A/B Discrimination. • See page 38 for IC Block Diagrams and page 41 for Waveforms.



• **Semiconductor Location (Component Side)**

Ref. No.	Location	Ref. No.	Location
D3	F-11	IC203	H-5
D5	H-12	IC204	E-4
D200	J-5	IC250	J-6
D201	D-7	IC300	E-8
D202	D-6	IC600	D-2
D302	B-12	IC700	I-8
D303	G-8	IC801	J-2
D500	B-5	IC802	J-2
D501	B-5		
D504	B-7	Q1	D-11
D505	B-6	Q2	C-11
D506	B-7	Q4	F-13
D507	B-8	Q5	H-12
D508	B-8	Q6	C-13
D600	B-2	Q50	I-13
D601	B-2	Q51	J-13
D602	C-2	Q100	H-13
D603	D-3	Q102	G-12
D701	K-7	Q103	H-12
D702	K-10	Q250	J-5
D800	F-3	Q252	D-7
D801	E-4	Q253	D-6
D802	I-2	Q254	C-6
D803	I-2	Q255	D-5
D900	B-1	Q301	C-7
D901	J-6	Q302	C-7
D902	K-10	Q303	C-7
D903	K-10	Q401	C-9
D904	K-9	Q402	B-8
D907	J-7	Q403	B-9
D909	J-11	Q500	B-6
D910	J-11	Q600	D-3
D911	J-11	Q603	D-2
D912	J-11	Q700	G-7
D913	D-4	Q900	D-4
D914	G-1	Q901	K-7
		Q902	K-6
IC100	E-12	Q905	K-10
IC102	I-12	Q906	J-7
IC103	H-12	Q991	G-7
IC200	F-3	Q993	G-5
IC202	G-5		

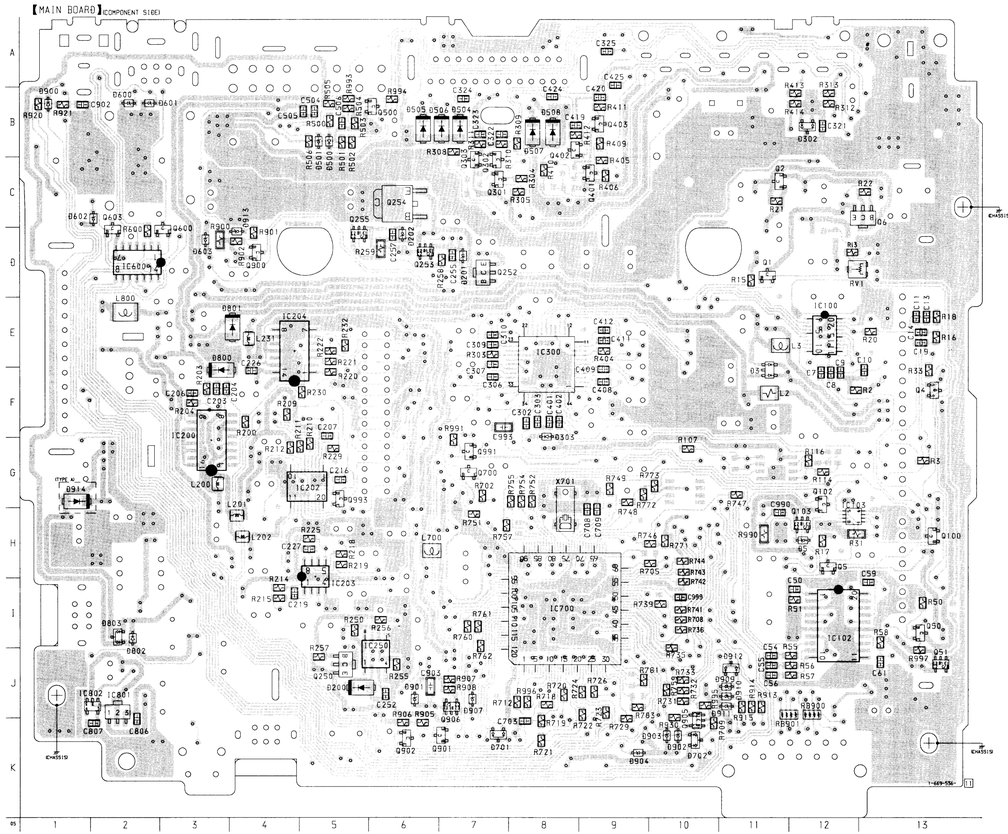
Note on Printed Wiring Board:
- ○——— : parts extracted from the component side.
- △ : internal component.
- ▒▒▒ : Pattern from the side which enables seeing.

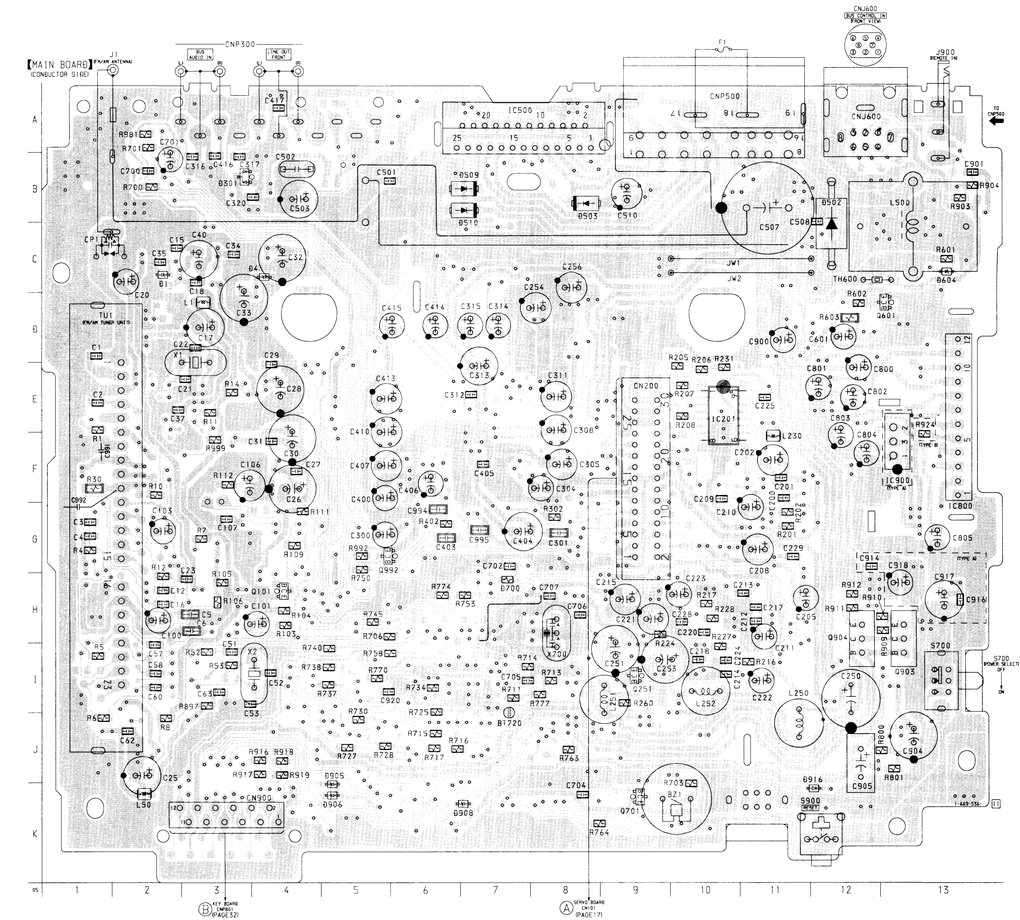
(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

5-4. PRINTED WIRING BOARD – MAIN Section –

• See page 2 for Model Identification, TYPE A/B Discrimination.

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IC500
IC201
IC900
TH600
TU1
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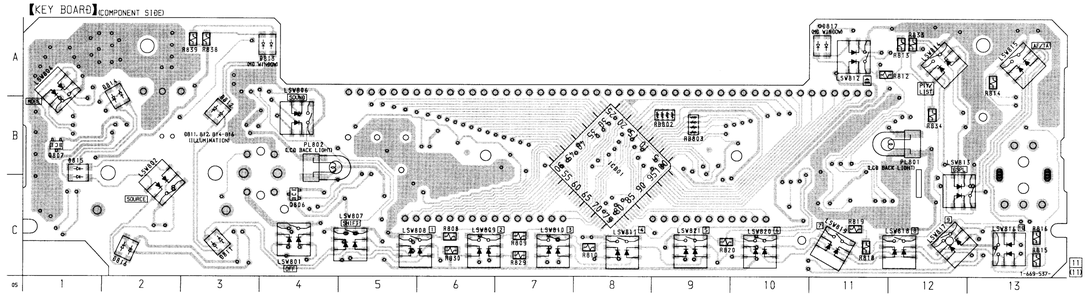
5-5. PRINTED WIRING BOARD – PANEL Section –

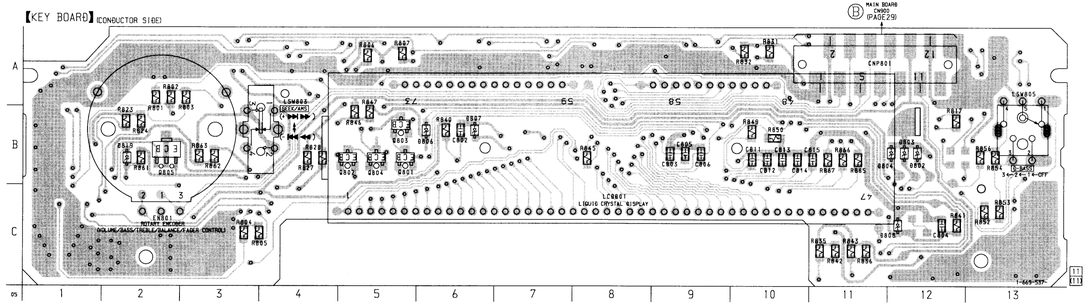
• **Semiconductor Location (Component Side)**

Ref. No.	Location
D811	C-3
D812	B-3
D813	A-4
D814	A-2
D815	B-1
D816	C-2
D817	A-11
IC801	B-8
Q806	C-4
Q807	B-1



• **Semiconductor Location (Conductor Side)**

Ref. No.	Location
D802	B-12
D803	B-12
D804	B-12
D806	B-6
D807	B-6
D808	C-12
D819	B-2
Q801	B-5
Q802	B-5
Q803	B-5
Q804	B-5
Q805	B-2

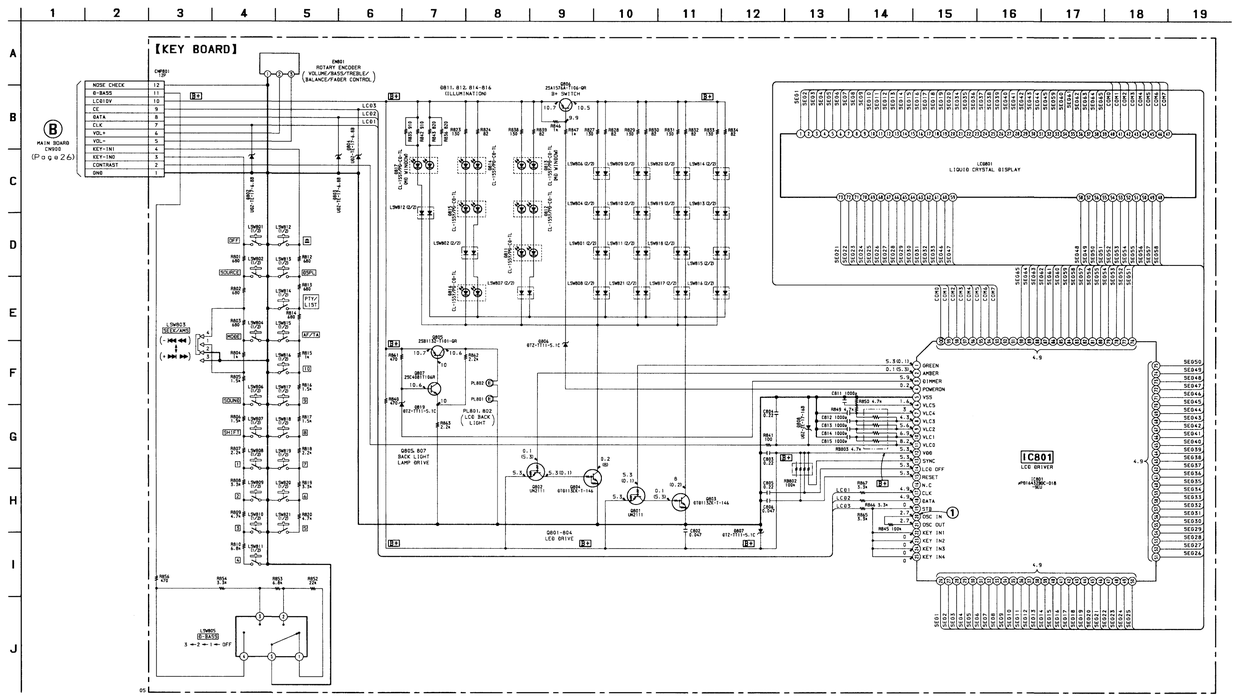


Note on Printed Wiring Board:
- ○——— : parts extracted from the component side.
- ▒▒▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

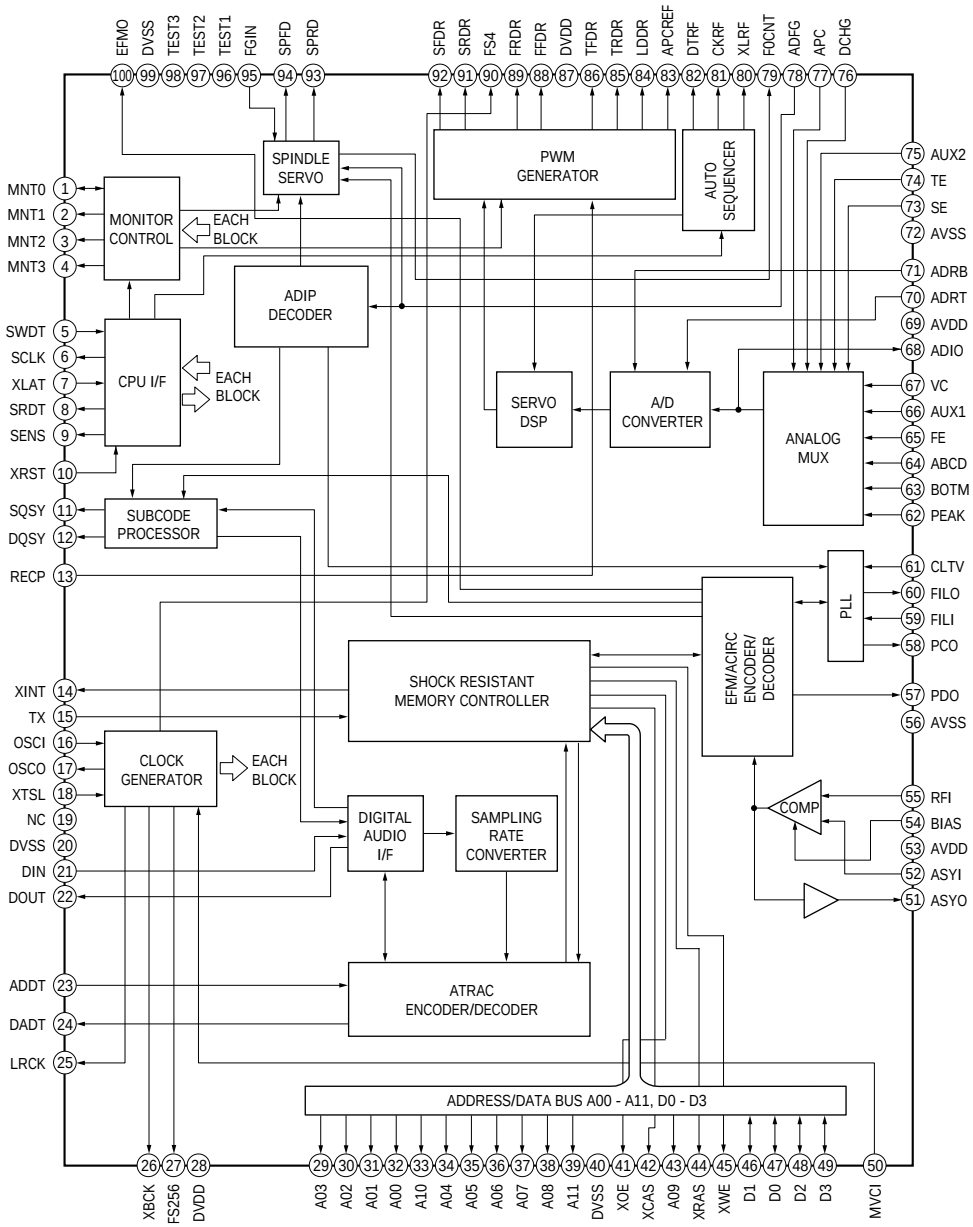
5-6. SCHEMATIC DIAGRAM – PANEL Section – • See page 42 for Waveform.



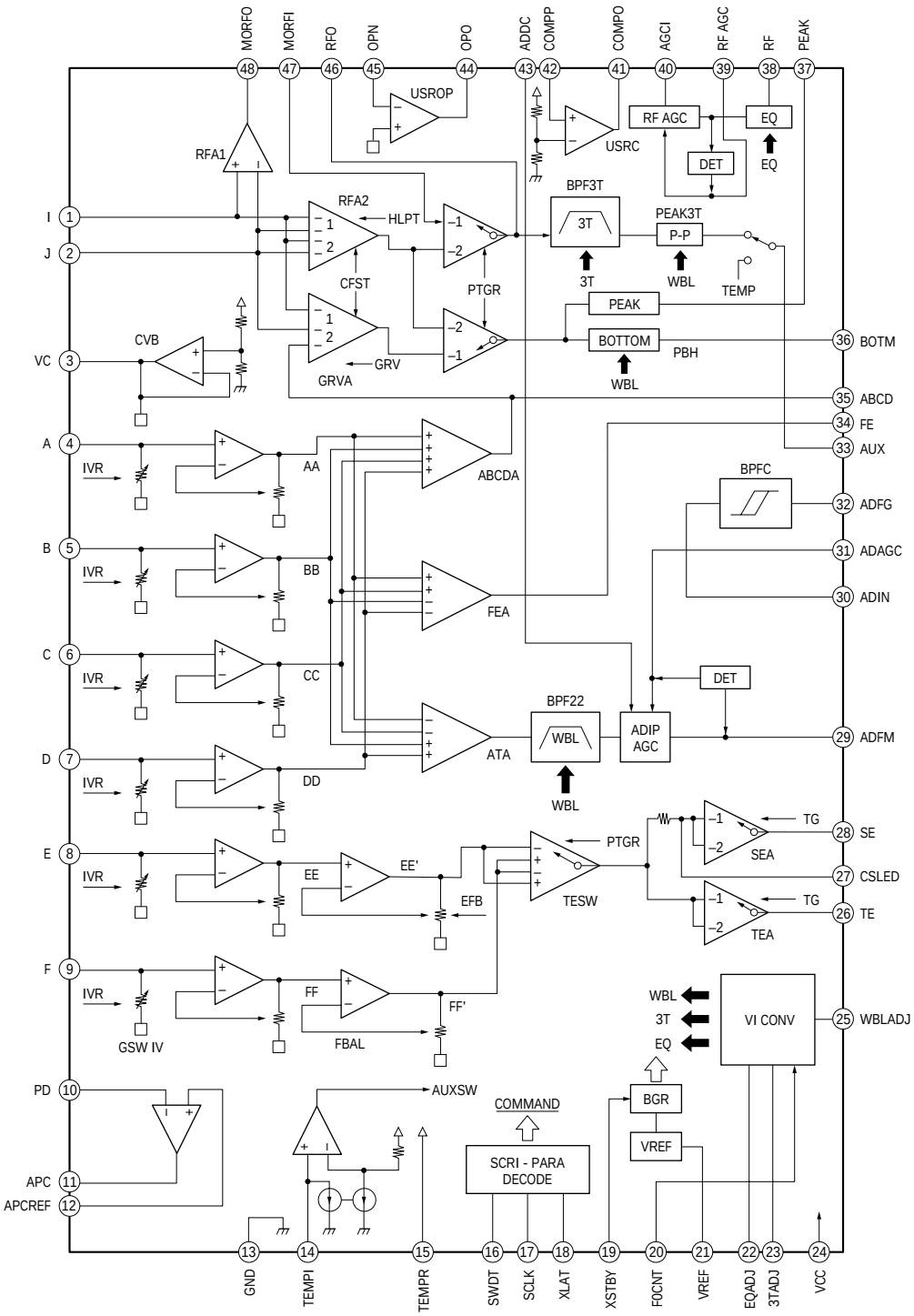
Note on Schematic Diagram:
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- [ ] : panel designation.
- B+ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM (AMBER Illumination)
  ( ) : FM (GREEN Illumination)
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

• IC Block Diagrams
– SERVO Board –

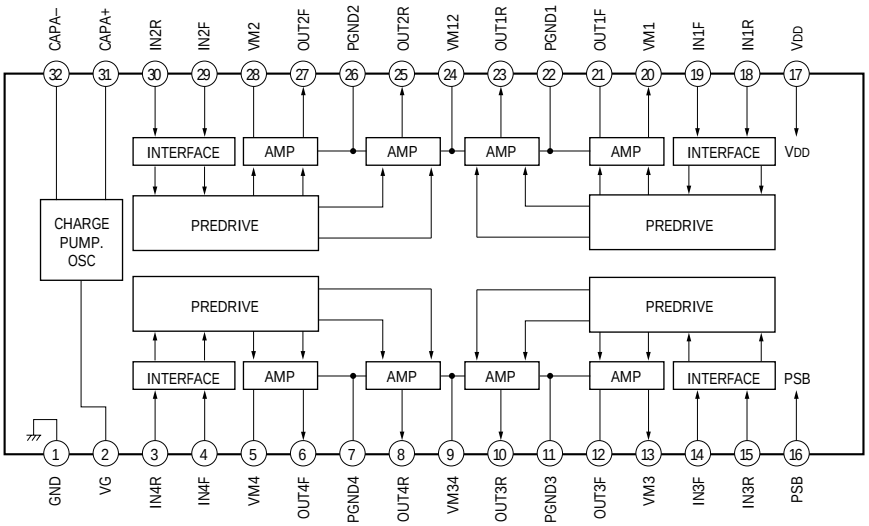
IC301 CXD2652AR



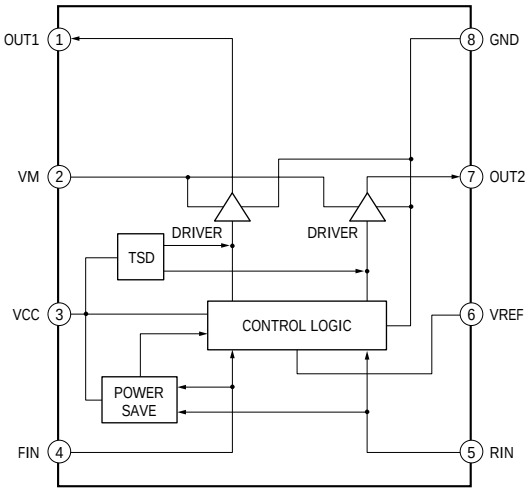
IC302 CXA2523R



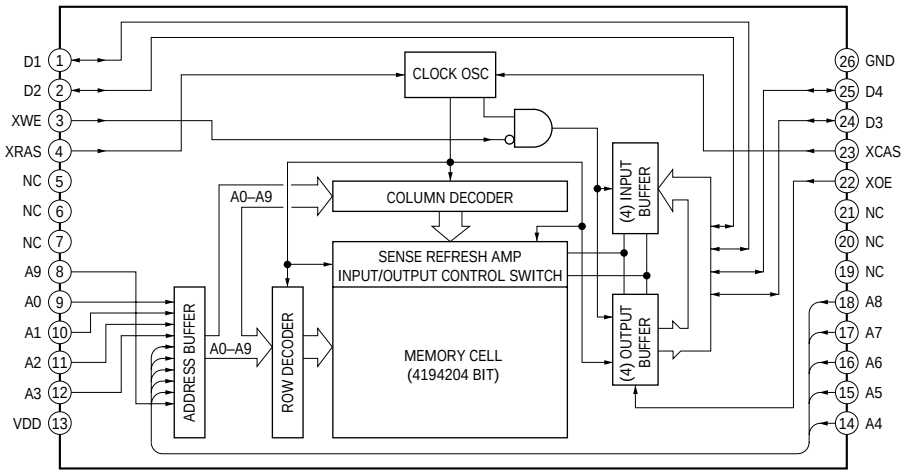
IC303 BH6511FS-E2



IC305 BA6287F

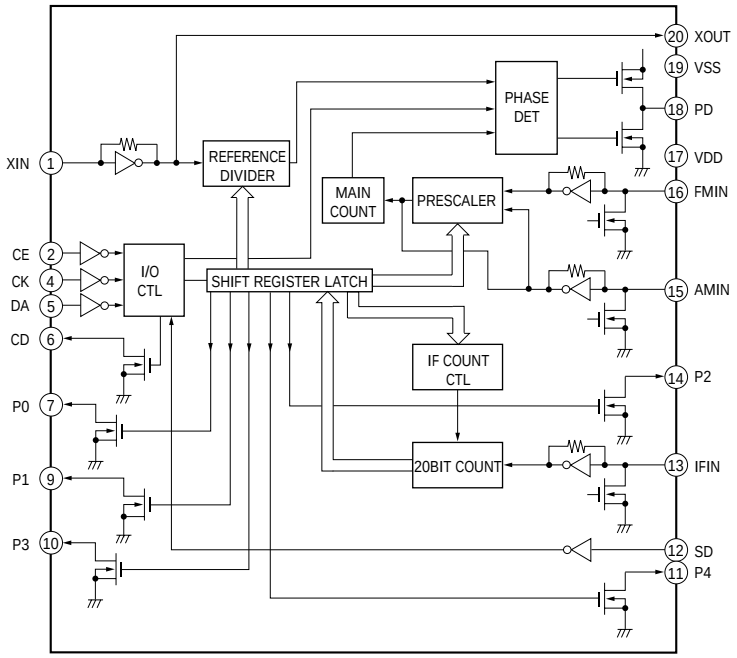


IC307 MSM51V4400-70TS-K

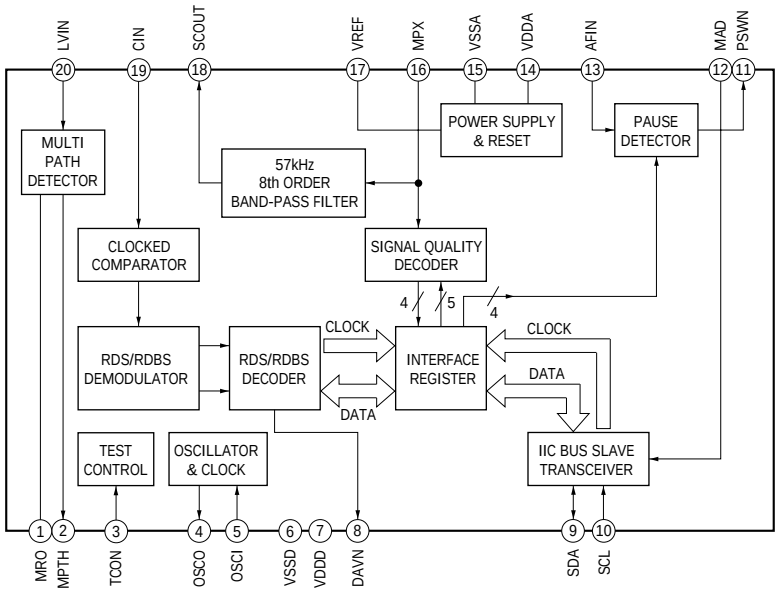


– MAIN Board –

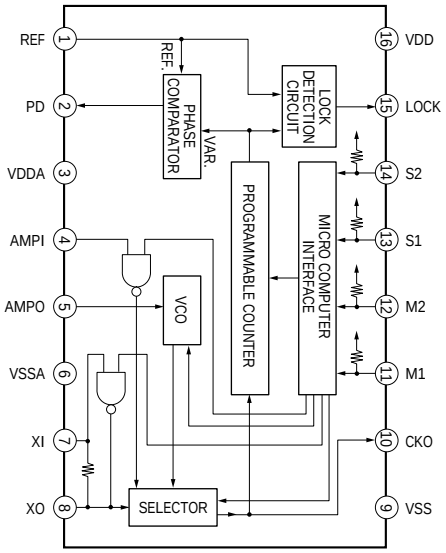
IC100 BU2624FV-E2



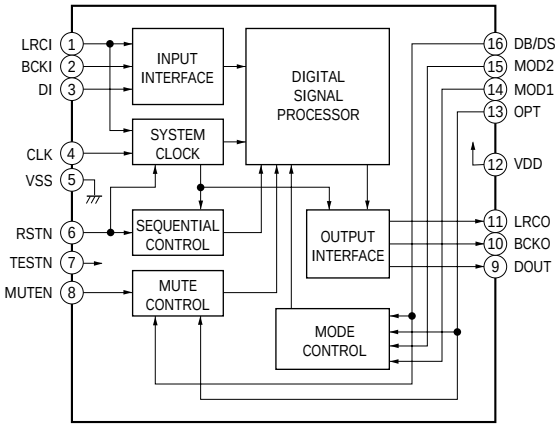
IC102 SAA6588T-118



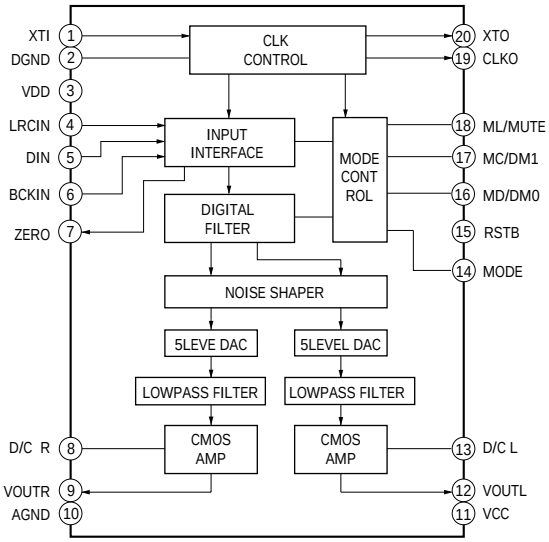
IC200 TC9246F-TP1



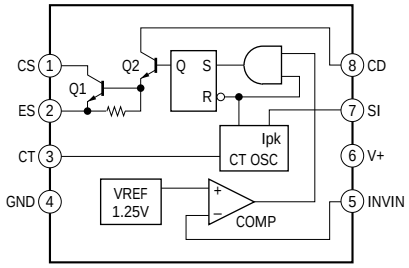
IC201 SM5852FS-E2



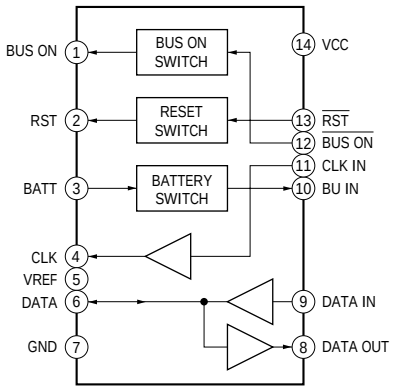
IC202 PCM1717E-ST2



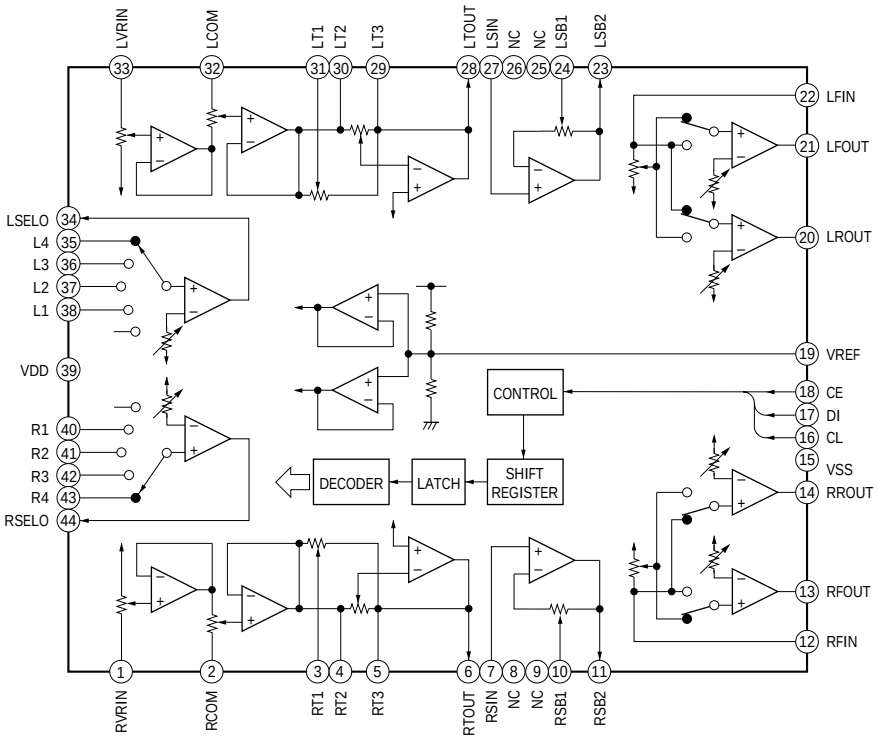
IC250 NJM2360AM (TE2)



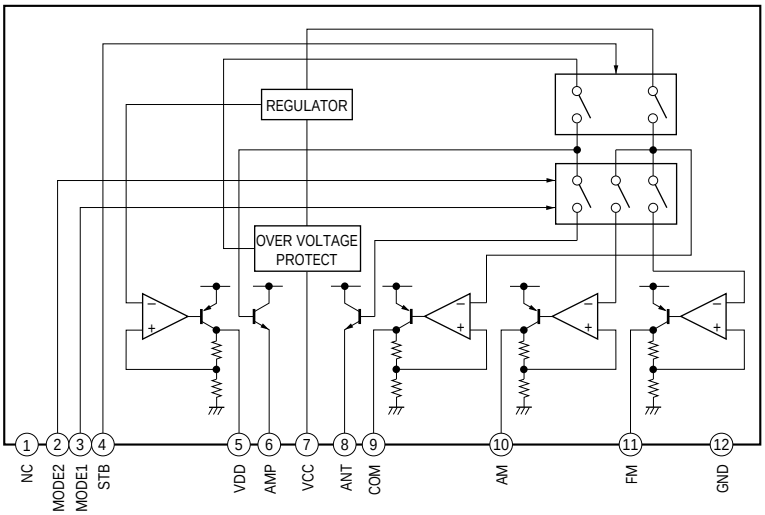
IC600 BA8270F-E2



IC300 LC75374E



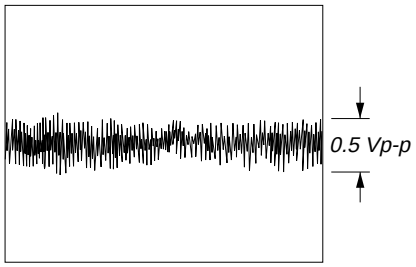
IC800 BA3918-V3



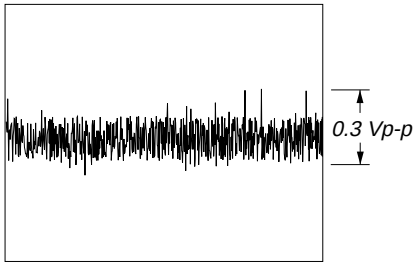
• Waveforms

– MECHANISM DECK Section –

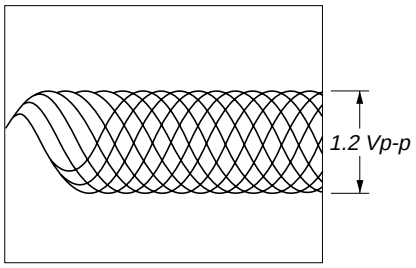
❶ IC302 ㉖ (TE) (PLAY MODE)



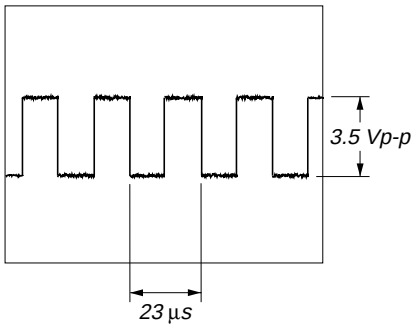
❷ IC302 ㉞ (FE) (PLAY MODE)



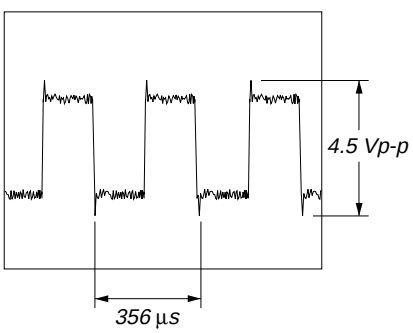
❸ IC302 ㊳ (RF) (PLAY MODE)



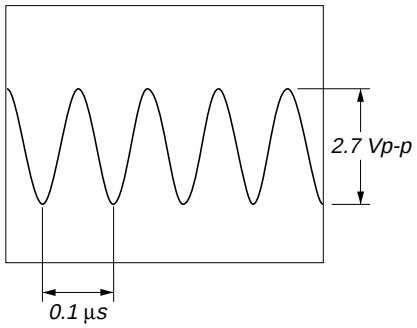
❹ IC301 ㉕ (LRCK) (PLAY MODE)



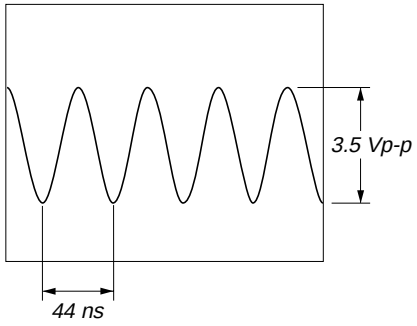
❺ IC301 ㉖ (XBCK) (PLAY MODE)



❻ IC501 ㉛ (EXTAL) (PLAY MODE)

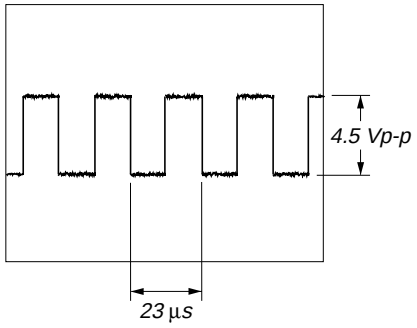


❼ IC304 ③ (IN) (PLAY MODE)

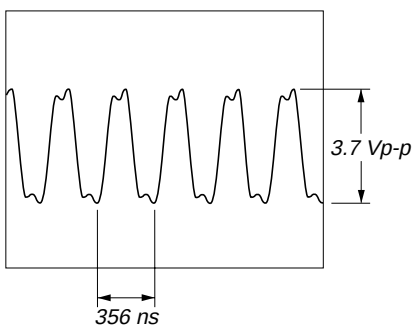


– MAIN Section –

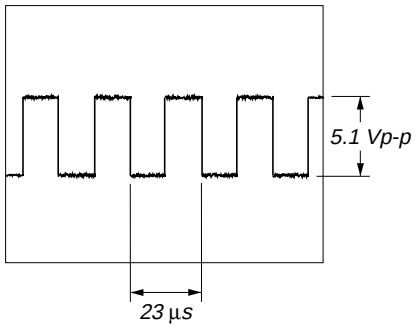
❶ IC204 ① (IN) (PLAY MODE)



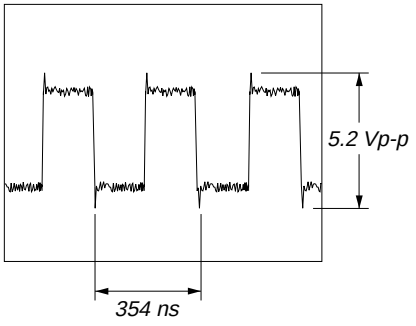
❷ IC204 ③ (IN) (PLAY MODE)



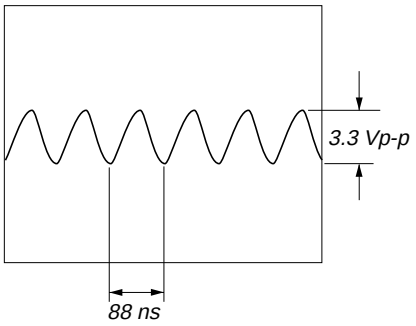
❸ IC201 ① (LRCL) (PLAY MODE)



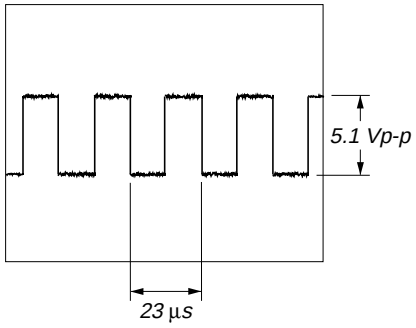
❹ IC201 ② (BCKI) (PLAY MODE)



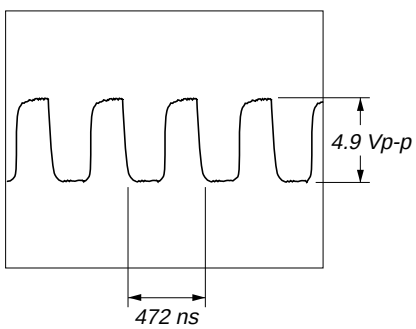
❺ IC202 ① (XTI) (PLAY MODE)



❻ IC202 ④ (LRCK) (PLAY MODE)

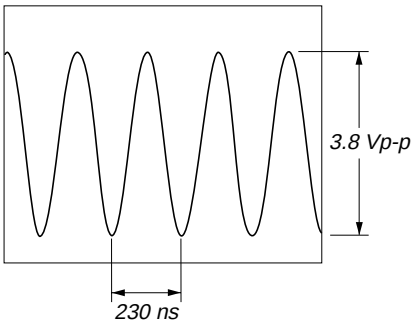


❼ IC202 ⑥ (BCK) (PLAY MODE)

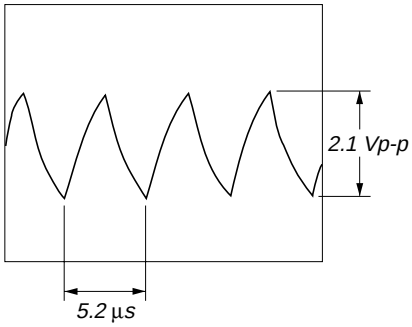


– PANEL Section –

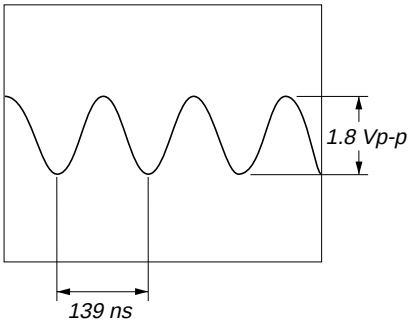
❽ IC102 ⑤ (OSCI) (FM MODE)



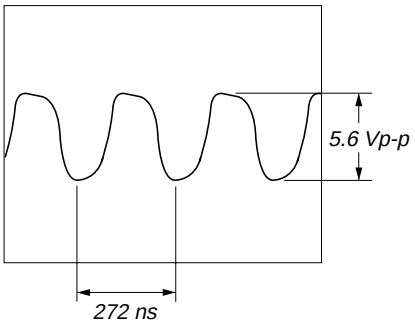
❶ IC801 ⑳ (OSC IN)



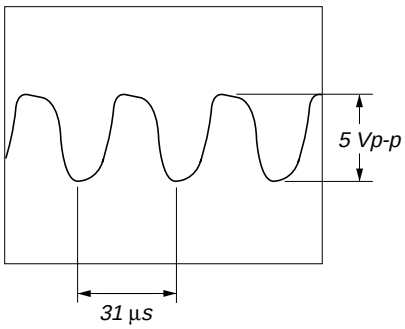
❾ IC100 ① (XI) (RADIO MODE)



❿ IC700 ㉝ (X1)



⓫ IC700 ㉓ (X1A)



5-7. IC PIN FUNCTION DESCRIPTION

- **SERVO BOARD IC301 CXD2652AR**

(DIGITAL SIGNAL PROCESSOR, DIGITAL SERVO PROCESSOR, EFM/ACIRC ENCODER/DECODER, SHOCK PROOF MEMORY CONTROLLER, ATRAC ENCODER/DECODER, 2M BIT D-RAM)

Pin No.	Pin Name	I/O	Function
1	MNT0	O	Focus OK signal output to the MD mechanism controller (IC501) "H" is output when focus is on ("L": NG)
2	MNT1	O	Track jump detection signal output to the MD mechanism controller (IC501)
3	MNT2	O	Monitor 2 signal output to the MD mechanism controller (IC501)
4	MNT3	O	Monitor 3 signal output to the MD mechanism controller (IC501)
5	SWDT	I	Writing serial data signal input from the MD mechanism controller (IC501)
6	SCLK	I	Serial data transfer clock signal input from the MD mechanism controller (IC501)
7	XLAT	I	Serial data latch pulse signal input from the MD mechanism controller (IC501)
8	SRDT	O (3)	Reading serial data signal output to the MD mechanism controller (IC501)
9	$\overline{\text{SENS}}$	O (3)	Internal status (SENSE) output to the MD mechanism controller (IC501)
10	XRST	I	Reset signal input from the MD mechanism controller (IC501) "L": reset
11	SQSY	O	Subcode Q sync (SCOR) output to the MD mechanism controller (IC501) "L" is output every 13.3 msec Almost all, "H" is output
12	DQSY	O	Digital In U-bit CD format subcode Q sync (SCOR) output terminal "L" is output every 13.3 msec Almost all, "H" is output Not used (open)
13	RECP	I	Laser power selection signal input terminal "H": recording mode, "L": playback mode (fixed at "L" in this set)
14	XINT	O	Interrupt status output to the MD mechanism controller (IC501)
15	TX	I	Recording data output enable signal input terminal Writing data transmission timing input (Also serves as the magnetic head on/off output) Not used (fixed at "L")
16	OSCI	I	System clock signal (512Fs=22.5792 MHz) input from the oscillator circuit
17	OSCO	O	System clock signal (512Fs=22.5792 MHz) output terminal Not used (open)
18	XTSL	I	Input terminal for the system clock frequency setting "L": 45.1584 MHz, "H": 22.5792 MHz (fixed at "H" in this set)
19	RVDD	—	Power supply terminal (+3.3V) (digital system)
20	RVSS	—	Ground terminal (digital system)
21	DIN	I	Digital audio signal input terminal when recording mode (for optical in) Not used (fixed at "L")
22	DOUT	O	Digital audio signal output terminal when playback mode (for optical out) Not used (open)
23	ADDT	I	Recording data input terminal Not used (fixed at "L")
24	DADT	O	Playback data output terminal Not used (open)
25	LRCK	O	L/R sampling clock signal (44.1 kHz) output terminal Not used (open)
26	XBCK	O	Bit clock signal (2.8224 MHz) output terminal Not used (open)
27	FS256	O	Clock signal (11.2896 MHz) output to the PCM1717E (IC202)
28	DVDD	—	Power supply terminal (+3.3V) (digital system)
29	A03	O	Address signal output to the D-RAM (IC307)
30	A02	O	
31	A01	O	
32	A00	O	
33	A10	O	Address signal output to the external D-RAM Not used (open)
34	A04	O	Address signal output to the D-RAM (IC307)
35	A05	O	
36	A06	O	
37	A07	O	
38	A08	O	
39	A11	O	Address signal output to the external D-RAM Not used (open)

Pin No.	Pin Name	I/O	Function
40	DVSS	—	Ground terminal (digital system)
41	$\overline{\text{XOE}}$	O	Output enable signal output to the D-RAM (IC307) "L" active
42	$\overline{\text{XCAS}}$	O	Column address strobe signal output to the D-RAM (IC307) "L" active
43	A09	O	Address signal output to the external D-RAM Not used (open)
44	$\overline{\text{XRAS}}$	O	Row address strobe signal output to the D-RAM (IC307) "L" active
45	$\overline{\text{XWE}}$	O	Write enable signal output to the D-RAM (IC307) "L" active
46	D1	I/O	Two-way data bus with the D-RAM (IC307)
47	D0	I/O	
48	D2	I/O	
49	D3	I/O	
50	MVCI	I	Digital in PLL oscillation input from the external VCO Not used (fixed at "L")
51	ASYO	O	Playback EFM full-swing output terminal
52	ASYI	I (A)	Playback EFM asymmetry comparator voltage input terminal
53	AVDD	—	Power supply terminal (+3.3V) (analog system)
54	BIAS	I (A)	Playback EFM asymmetry circuit constant current input terminal
55	RFI	I (A)	Playback EFM RF signal input from the CXA2523R (IC302)
56	AVSS	—	Ground terminal (analog system)
57	PDO	O (3)	Phase comparison output for clock playback analog PLL of the playback EFM Not used (open)
58	PCO	O (3)	Phase comparison output for master clock of the recording/playback EFM master PLL
59	FILI	I (A)	Filter input for master clock of the recording/playback master PLL
60	FILO	O (A)	Filter output for master clock of the recording/playback master PLL
61	CLTV	I (A)	Internal VCO control voltage input of the recording/playback master PLL
62	PEAK	I (A)	Light amount signal (RF/ABCD) peak hold input from the CXA2523R (IC302)
63	BOTM	I (A)	Light amount signal (RF/ABCD) bottom hold input from the CXA2523R (IC302)
64	ABCD	I (A)	Light amount signal (ABCD) input from the CXA2523R (IC302)
65	FE	I (A)	Focus error signal input from the CXA2523R (IC302)
66	AUX1	I (A)	Auxiliary signal (I_3 signal/temperature signal) input terminal Not used (fixed at "H")
67	VC	I (A)	Middle point voltage (+1.65V) input from the CXA2523R (IC302)
68	ADIO	O (A)	Monitor output of the A/D converter input signal Not used (open)
69	AVDD	—	Power supply terminal (+3.3V) (analog system)
70	ADRT	I (A)	A/D converter operational range upper limit voltage input terminal (fixed at "H" in this set)
71	ADRB	I (A)	A/D converter operational range lower limit voltage input terminal (fixed at "L" in this set)
72	AVSS	—	Ground terminal (analog system)
73	SE	I (A)	Sled error signal input from the CXA2523R (IC302)
74	TE	I (A)	Tracking error signal input from the CXA2523R (IC302)
75	AUX2	I (A)	Auxiliary signal input terminal Light amount signal input from the CXA2523R (IC302)
76	DCHG	I (A)	Connected to the +3.3V power supply
77	APC	I (A)	Error signal input for the laser automatic power control Not used (fixed at "L")
78	ADFG	I	ADIP duplex FM signal (22.05 kHz ± 1 kHz) input from the CXA2523R (IC302)
79	F0CNT	O	Filter f0 control signal output terminal Not used (open)
80	XLRF	O	Serial data latch pulse signal output terminal Not used (open)
81	CKRF	O	Serial data transfer clock signal output terminal Not used (open)
82	DTRF	O	Writing serial data output terminal Not used (open)
83	APCREF	O	Control signal output to the reference voltage generator circuit for the laser automatic power control
84	LDDR	O	PWM signal output for the laser automatic power control Not used (open)
85	TRDR	O	Tracking servo drive PWM signal (–) output to the BH6511FS (IC303)
86	TFDR	O	Tracking servo drive PWM signal (+) output to the BH6511FS (IC303)

Pin No.	Pin Name	I/O	Function
87	DVDD	—	Power supply terminal (+3.3V) (digital system)
88	FFDR	O	Focus servo drive PWM signal (+) output to the BH6511FS (IC303)
89	FRDR	O	Focus servo drive PWM signal (–) output to the BH6511FS (IC303)
90	FS4	O	Clock signal (176.4 kHz) output terminal (X'tal system) Not used (open)
91	SRDR	O	Sled servo drive PWM signal (–) output to the BH6511FS (IC303)
92	SFDR	O	Sled servo drive PWM signal (+) output to the BH6511FS (IC303)
93	SPRD	O	Spindle servo drive PWM signal (–) output to the BH6511FS (IC303)
94	SPFD	O	Spindle servo drive PWM signal (+) output to the BH6511FS (IC303)
95	FGIN	I	Not used (fixed at "L")
96	TEST1	I	Input terminal for the test (fixed at "L")
97	TEST2	I	
98	TEST3	I	
99	DVSS	—	Ground terminal (digital system)
100	EFMO	O	EFM signal output terminal when recording mode Not used (open)

* I (A) for analog input, O (3) for 3-state output, and O (A) for analog output in the column I/O.

• **SERVO BOARD IC302 CXA2523R (RF AMP, FOCUS/TRACKING ERROR AMP)**

Pin No.	Pin Name	I/O	Function
1	I	I	I-V converted RF signal I input from the optical pick-up block detector
2	J	I	I-V converted RF signal J input from the optical pick-up block detector
3	VC	O	Middle point voltage (+1.65V) generation output terminal
4 to 9	A to F	I	Signal input from the optical pick-up detector
10	PD	I	Light amount monitor input from the optical pick-up block laser diode
11	APC	O	Laser amplifier output terminal to the automatic power control circuit
12	APCREF	I	Reference voltage input terminal for setting laser power
13	GND	—	Ground terminal
14	TEMPI	I	Connected to the temperature sensor Not used (open)
15	TEMPR	O	Output terminal for a temperature sensor reference voltage Not used (open)
16	SWDT	I	Writing serial data input from the MD mechanism controller (IC501)
17	SCLK	I	Serial data transfer clock signal input from the MD mechanism controller (IC501)
18	XLAT	I	Serial data latch pulse signal input from the MD mechanism controller (IC501)
19	$\overline{\text{XSTBY}}$	I	Standby signal input terminal "L": standby (fixed at "H" in this set)
20	F0CNT	I	Center frequency control voltage input terminal of internal circuit (BPF22, BPF3T, EQ) input terminal
21	VREF	O	Reference voltage output terminal Not used (open)
22	EQADJ	I	Center frequency setting terminal for the internal circuit (EQ)
23	3TADJ	I	Center frequency setting terminal for the internal circuit (BPF3T)
24	VCC	—	Power supply terminal (+3.3V)
25	WBLADJ	I	Center frequency setting terminal for the internal circuit (BPF22)
26	TE	O	Tracking error signal output to the CXD2652AR (IC301)
27	CSLED	I	Connected to the external capacitor for low-pass filter of the sled error signal
28	SE	O	Sled error signal output to the CXD2652AR (IC301)
29	ADFM	O	FM signal output of the ADIP
30	ADIN	I	Receives a ADIP FM signal in AC coupling
31	ADAGC	I	Connected to the external capacitor for ADIP AGC
32	ADFG	O	ADIP duplex signal (22.05 kHz ± 1 kHz) output to the CXD2652AR (IC301)
33	AUX	O	Auxiliary signal (I_3 signal/temperature signal) output terminal Not used (open)
34	FE	O	Focus error signal output to the CXD2652AR (IC301)
35	ABCD	O	Light amount signal (ABCD) output to the CXD2652AR (IC301)
36	BOTM	O	Light amount signal (RF/ABCD) bottom hold output to the CXD2652AR (IC301)
37	PEAK	O	Light amount signal (RF/ABCD) peak hold output to the CXD2652AR (IC301)
38	RF	O	Playback EFM RF signal output to the CXD2652AR (IC301)
39	RFAGC	I	Connected to the external capacitor for RF auto gain control circuit
40	AGCI	I	Receives a RF signal in AC coupling
41	COMPO	O	User comparator output terminal Not used (open)
42	COMPP	I	User comparator input terminal Not used (fixed at "L")
43	ADDC	I	Connected to the external capacitor for cutting the low band of the ADIP amplifier
44	OPO	O	User operational amplifier output terminal Not used (open)
45	OPN	I	User operational amplifier inversion input terminal Not used (fixed at "L")
46	RFO	O	RF signal output terminal
47	MORFI	I	Receives a MO RF signal in AC coupling
48	MORFO	O	MO RF signal output terminal

• **SERVO BOARD IC501 CXP84340-089Q (MD MECHANISM CONTROLLER)**

Pin No.	Pin Name	I/O	Function
1 to 5	TIN3 to TIN7	I/O	Input of the 4×8 matrix test keys (“L” is always output, except in test mode) Not used (open)
6	LOAD	O	Loading motor control signal output to the motor driver (IC305) *1
7	EJECT	O	Loading motor control signal output to the motor driver (IC305) *1
8, 9	NCO	O	Not used (open)
10	MDMON	O	Power supply on/off control signal output of the MD mechanism deck section main power supply and loading motor drive (IC305) power supply “H”: power on
11	$\overline{\text{E-SW}}$	I	Inputs the disc loading completion detect switch (S902) detection signal “L”: When completed of the disc loading operation
12	AG-OK	O	Output of aging status in test mode “H”: aging completed, “L”: under aging Not used (open)
13	ADJ-OK	O	Output of status when aging completed in test mode “H”: aging OK, “L”: aging NG Not used (open)
14 to 17	NCO	O	Not used (open)
18	DFCTSEL	I	Select whether defect function is used for the CXD2652AR (IC301) “H”: not used this function, “L”: used this function (fixed at “H” in this set)
19	DPLLSEL	I	Select whether digital pll function is used for the CXD2652AR (IC301) “H”: not used this function, “L”: used this function (fixed at “H” in this set)
20	EMPHSEL	I	Select whether emphasis signal output from pin or unilink data “H”: output from pin only, “L”: outputs from both pin and unilink data Not used (open)
21	LOCK	O	Mini-disc lock detection signal output to the master controller (IC700) “H”: lock
22	NCO	O	Not used (open)
23	2M/$\overline{\text{4M}}$	I	Select whether D-RAM capacitance 2M bit or 4M bit “H”: 2M bit (internal D-RAM of CXD2652AR), “L”: 4M bit (external D-RAM) (fixed at “L” in this set)
24, 25	NCO	O	Not used (open)
26	MNT0	I	Focus OK signal input from the CXD2652AR (IC301) “H” is input when focus is on (“L”: NG)
27	MNT1	I	Track jump detection signal input from the CXD2652AR (IC301)
28	MNT2	I	Monitor 2 signal input from the CXD2652AR (IC301)
29	MNT3	I	Monitor 3 signal input from the CXD2652AR (IC301)
30	$\overline{\text{RESET}}$	I	System reset signal input from the master controller (IC700), reset signal generator (IC801) and reset switch (S900) “L”: reset For several hundreds msec. after the power supply rises, “L” is input, then it changes to “H”
31	EXTAL	O	Main system clock output terminal (10 MHz)
32	XTAL	I	Main system clock input terminal (10 MHz)
33	VSS	—	Ground terminal
34	TX	O	Sub system clock output terminal (32.768 kHz) Not used (open)
35	TEX	I	Sub system clock input terminal (32.768 kHz) Not used (fixed at “L”)
36	AVSS	—	Ground terminal (for A/D converter)
37	AVREF	I	Reference voltage input terminal (+5V) (for A/D converter)
38	INIT	I	Initial reset signal input terminal (A/D input) (fixed at “H”)
39	TEMP	I	Temperature sensor (TH501) input terminal (A/D input)
40	ACNT	I	Select the number of load/eject aging times (A/D input) 0H – 54H (30 times), 55H – OA9H (20 times), OAAH – OFFH (10 times)
41	DO-SEL	I	Select the digital output bits (A/D input)
42	EE-CS	O	Chip select signal output to the external EEPROM device Not used (open)
43	EE-CKO	O	Serial data transfer clock signal output to the external EEPROM device Not used (open)
44	EE-SIO	I/O	Two way data bus with the external EEPROM device Not used (open)
45	MD-SO	O	Writing serial data signal output to the CXD2652AR (IC301) and CXA2523R (IC302)
46	LINKOFF	O	Unilink on/off control signal output for the SONY bus “H”: link off, “L”: link on

Pin No.	Pin Name	I/O	Function
47	UNIREQ	O	Data request signal output terminal (for SONY bus) "H": request on Not used (open)
48	UNCKI	I	Serial data transfer clock signal input from the master controller (IC700) (for SONY bus)
49	UNISI	I	Serial data input from the SONY bus interface (IC600)
50	UNISO	O	Serial data output to the SONY bus interface (IC600)
51	MD-CKO	O	Serial data transfer clock signal output to the CXD2652AR (IC301) and CXA2523R (IC302)
52	MD-SI	I	Reading serial data signal input from the CXD2652AR (IC301)
53	NCO	O	Not used (open)
54	SENS	I	Internal status (SENSE) input from the CXD2652AR (IC301)
55	CC-XINT	I	Interrupt status input from the CXD2652AR (IC301)
56	$\overline{\text{LIMIT-IN}}$	I	Detection input from the sled limit-in detect switch (S903) The optical pick-up is inner position when "L"
57	EJT-KEY	I	Eject request signal input terminal "L": eject on Not used (fixed at "H")
58	ERROR-PWM	O	PWM error monitor output terminal (C1and ATER is output when test mode) Not used (open)
59	$\overline{\text{MD-RST}}$	O	Reset signal output to the CXD2652AR (IC301) and BH6511FS (IC303) "L": reset
60	BU-IN	I	Battery detect signal input from the SONY bus interface (IC600) and battery check circuit "H": battery on
61	$\overline{\text{BUS-ON}}$	I	SONY bus on/off control signal input from the master controller (IC700) "L": bus on
62	SQSY	I	Subcode Q sync (SCOR) input from the CXD2652AR (IC301) "L" is input every 13.3 msec Almost all, "H" is input
63	$\overline{\text{C-SW}}$	I	Inputs the disc loading start or disc eject completion detect switch (S901) detection signal "L": When start or eject completed of the disc loading operation
64	MD-LAT	O	Serial data latch pulse signal output to the CXD2652AR (IC301) and CXA2523R (IC302)
65	MD-ON	O	Power supply on/off control signal output of the MD mechanism deck section main power supply "H": power on
66	DEEMP	O	Emphasis on/off control signal output terminal "H": emphasis on Not used
67	A-MUTE	O	Audio muting on/off control signal output terminal Not used
68	NCO	O	Not used (open)
69	TSTCKO	O	Output of clock signal for the test mode display Not used (open)
70	TSTSO	O	Output of data for the test mode display Not used (open)
71	$\overline{\text{TSTMOD}}$	I	Setting terminal for the test mode "L": test mode, "H": normal mode
72	VCC	—	Power supply terminal (+5V)
73	NC	—	Not used (fixed at "H")
74 to 77	TOUT0 to TOUT3	O	Output of the 4×8 matrix test keys Not used (open)
78 to 80	TIN0 to TIN2	I/O	Input of the 4×8 matrix test keys ("L" is always output, except in test mode) Not used (open)

*1 Loading motor (M903) control

Terminal \ Operation	IN	OUT	BRAKE	STOP
LOAD (pin ⑥)	"H"	"L"	"H"	"L"
EJECT (pin ⑦)	"L"	"H"	"H"	"L"

• **MAIN BOARD IC700 (MASTER CONTROLLER)**

TYPE A: MB90574PFV-G-113-BND
TYPE B: MB90F574PFV-G-113

Pin No.	Pin Name	I/O	Function
1 to 7	NC	O	Not used (open)
8	VCC	—	Power supply terminal (+5V)
9	PLL SI	I	PLL serial data input from the FM/AM PLL (IC100)
10	PLL SO	O	PLL serial data output to the FM/AM PLL (IC100)
11	PLL CKO	O	PLL serial data transfer clock signal output to the FM/AM PLL (IC100)
12	NOSE SW	I	Detects the removal of the attaching and removing type front panel block "L": attaching
13	LCD SO	O	Serial data output to the liquid crystal display driver (IC801)
14	LCD CKO	O	Serial data transfer clock signal output to the liquid crystal display driver (IC801)
15	BEEP	O	Beep sound drive signal output terminal
16	DBMOD2	O	D-BASS mode control signal output to the SM5852ES (IC201)
17 to 19	NC	O	Not used (open)
20	UNI SI	I	Serial data input from the SONY bus interface (IC600)
21	UNI SO	O	Serial data output to the SONY bus interface (IC600)
22	UNI CKO	O	Serial data transfer clock signal output to the MD mechanism controller (IC501) and SONY bus interface (IC600)
23 to 25	NC	O	Not used (open)
26	VOL SO	O	Serial data output to the electrical volume (IC300)
27	VOL CKO	O	Serial data transfer clock signal output to the electrical volume (IC300)
28	DSTSEL0	I	Destination setting terminal (fixed at "L")
29	$\overline{\text{SYSRET}}$	O	System reset signal output to the MD mechanism controller (IC501) and SONY bus interface (IC600) "L": reset
30	DSTSEL1	I	Destination setting terminal (fixed at "L")
31	DMOD1	O	D-BASS mode control signal output to the SM5852ES (IC201)
32	$\overline{\text{TESTIN}}$	I	Setting terminal for the test mode "L": test mode (normally fixed at "H")
33	VSS	—	Ground terminal
34	C	—	Connected to capacitor (for coupling)
35	NC	O	Not used (open)
36	$\overline{\text{BUS ON}}$	O	Bus on/off control signal output to the MD mechanism controller (IC501) and SONY bus interface (IC600) "L": bus on
37	$\overline{\text{AD ON}}$	O	Power supply on/off control signal output for the A/D converter "L": power on
38	DVCC	—	Power supply terminal (+5V) (for D/A converter)
39	DVSS	—	Ground terminal (for D/A converter)
40	LCDANG	O	Output signal for the LCD view angle adjustment "H": When front panel is full open
41	VOL CE	O	Chip enable signal output to the electrical volume (IC300)
42	AVCC	—	Power supply terminal (+5V) (for A/D converter)
43	AVRH	I	Reference voltage (+5V) input terminal (for A/D converter)
44	AVRL	I	Reference voltage (0V) input terminal (for A/D converter)
45	AVSS	—	Ground terminal (for A/D converter)
46	KEY IN0	I	Key input terminal (A/D input) OFF, SOURCE, SEEK/AMS ▶▶I ▶▶ + I◀◀ ◀◀ – , SOUND, SHIFT, 1, 2, 3, 4 keys input (LSW801 to LSW804 and LSW806 to LSW811)
47	KEY IN1	I	Key input terminal (A/D input) ⏏, DSPL, LIST PTY, AF/TA, 10, 9, 8, 7, 6, 5 keys input (LSW812 to LSW821)
48	KEY IN2	I	Key input terminal (A/D input) Not used (fixed at "L")
49	RC IN0	I	Rotary remote commander shift key A/D input terminal

Pin No.	Pin Name	I/O	Function
50	D-BASS IN	I	D-BASS switch (LSW805) input terminal (A/D input)
51	NC	I	Not used (fixed at "L")
52	MPDH (MTP)	I	Multi-path input from the RDS decoder (IC102)
53	S METER (VSM)	I	FM and AM (MW/LW) signal meter voltage detection input from the FM/AM tuner unit (TU1)
54	VCC	—	Power supply terminal (+5V)
55	AMP ATT	O	Muting control signal output to the power amplifier (IC500) "H": muting on
56	AMP ON	O	Standby control signal output to the power amplifier (IC500) "L": standby, "H": amp on
57	ILL IN	I	Illuminate line detect signal input for the auto dimmer control Dimmer is present at input of "L"
58	LOCK IN	I	Mini-disc lock detection signal input from the MD mechanism controller (IC501) "H": lock
59	EMPH ON	O	Emphasis control signal output to the D/A converter (IC202) "H": emphasis on
60	AU ATT	O	Audio line muting on/off control signal output terminal "H": muting on
61	AF ATT	O	RDS AF playing attenuate signal output terminal Not used (open)
62	TU ATT	O	Tuner signal (FM and AM) muting on/off control signal output "H": muting on
63	VSS	—	Ground terminal
64	ACC IN	I	Accessory detect signal input terminal "L": accessory on
65	AF SEEK	O	RDS AF seek control signal output terminal
66	NC	O	Not used (open)
67	DAVN	I	Data transmit completed detect signal input from the RDS decoder (IC102)
68, 69	NC	O	Not used (open)
70	RDS SI	I	Serial data input from the RDS decoder (IC102)
71	RDS CKI	I	Serial data transfer clock signal input from the RDS decoder (IC102)
72	RC IN1	I	Rotary remote commander shift key A/D input terminal
73	X1A	O	Sub system clock output terminal (32 kHz)
74	X0A	I	Sub system clock input terminal (32 kHz)
75	NC	O	Not used (open)
76	BU IN	I	Battery detect signal input from the SONY bus interface (IC600) and battery check circuit "H": battery on
77, 78	NC	O	Not used (open)
79	KEYACK	I	Input of acknowledge signal for the key entry Acknowledge signal is input to accept function and eject keys in the power off status On at input of "H"
80	$\overline{\text{TEL ATT}}$	I	Telephone muting signal input terminal At input of "L", the signal is attenuated by –20 dB
81	ST IN/MONO	I/O	Input of FM stereo detection signal from FM/AM tuner unit (TU1), and output of forced monaural control signal to FM/AM tuner unit (TU1) (Commonly used for stereo display input and forced monaural output) FM stereo detection at input of "L", forced monaural at output of "L"
82	$\overline{\text{SEEKOUT}}$	O	Seek control signal output to the FM/AM tuner unit (TU1) (AM mode: used for IF count output, SD request, AGC cut etc., FM mode: used for SEEK, BTM, AF playing SD speed up etc.)
83	SD IN	I	Station detector detect input from the FM/AM tuner unit (TU1) Stop level for SEEK, BTM, etc. is determined SD is present at input of "H"
84	NC (MONO)	I	Not used (open)
85	PLL CE	O	PLL serial chip enable output to the FM/AM PLL (IC100)
86	HSTX	I	Hardware standby input terminal Not used (open)
87	MD2	I	Mode selection input terminal (fixed at "L")
88	MD1	I	Mode selection input terminal (fixed at "H")
89	MD0	I	Mode selection input terminal (fixed at "H")
90	$\overline{\text{RESET}}$	I	System reset signal input from the reset signal generator (IC801) and reset switch (S900) "L" is input for several 100 msec after power on, then it changes to "H"
91	VSS	—	Ground terminal

Pin No.	Pin Name	I/O	Function
92	X0	I	Main system clock input terminal (3.68 MHz)
93	X1	O	Main system clock output terminal (3.68 MHz)
94	VCC	—	Power supply terminal (+5V)
95	PW SEL	I	Power select switch (S700) input terminal "L": on (operation mode), "H": off (halt mode)
96	POL MONO	I	Polar monaural detection signal input terminal Not used (open)
97 to 99	NC	O	Not used (open)
100	BAND (9K-10K)	I	Frequency select input terminal Not used (fixed at "H")
101	NC	O	Not used (open)
102	RAMBU	I	Internal RAM reset detection signal input from the RN5VD23AA (IC802) Input terminal to check that RAM data are not destroyed due to low voltage This checking is made within 100 msec after reset
103	NC	O	Not used (open)
104	LCD CE	O	Chip enable output to the liquid crystal display driver (IC801)
105	FLASH W	I	Fixed at "H" in this set
106	REIN0	I	Rotary encoder (EN801) input for volume/bass/treble/balance/fader control
107	REIN1	I	Rotary encoder (EN801) input for volume/bass/treble/balance/fader control
108	LAMP ON (ILL ON)	O	Power supply on/off control signal output terminal at the illumination and liquid crystal display driver (IC801) "H": power on At power select switch (S700) on mode: "H" output at the accessory on At power select switch (S700) off mode: "H" output at the power on
109	PW ON	O	Main system power supply on/off control signal output to the BA3918 (IC800) "H": power on
110	FM ON	O	FM system power supply on/off control signal output to the BA3918 (IC800) "H": FM on
111	TUN ON	O	Tuner system power supply on/off control signal output to the BA3918 (IC800) "H": tuner on
112 to 118	NC	O	Not used (open)
119	VSS	—	Ground terminal
120	NC	O	Not used (open)

SECTION 6
EXPLODED VIEWS

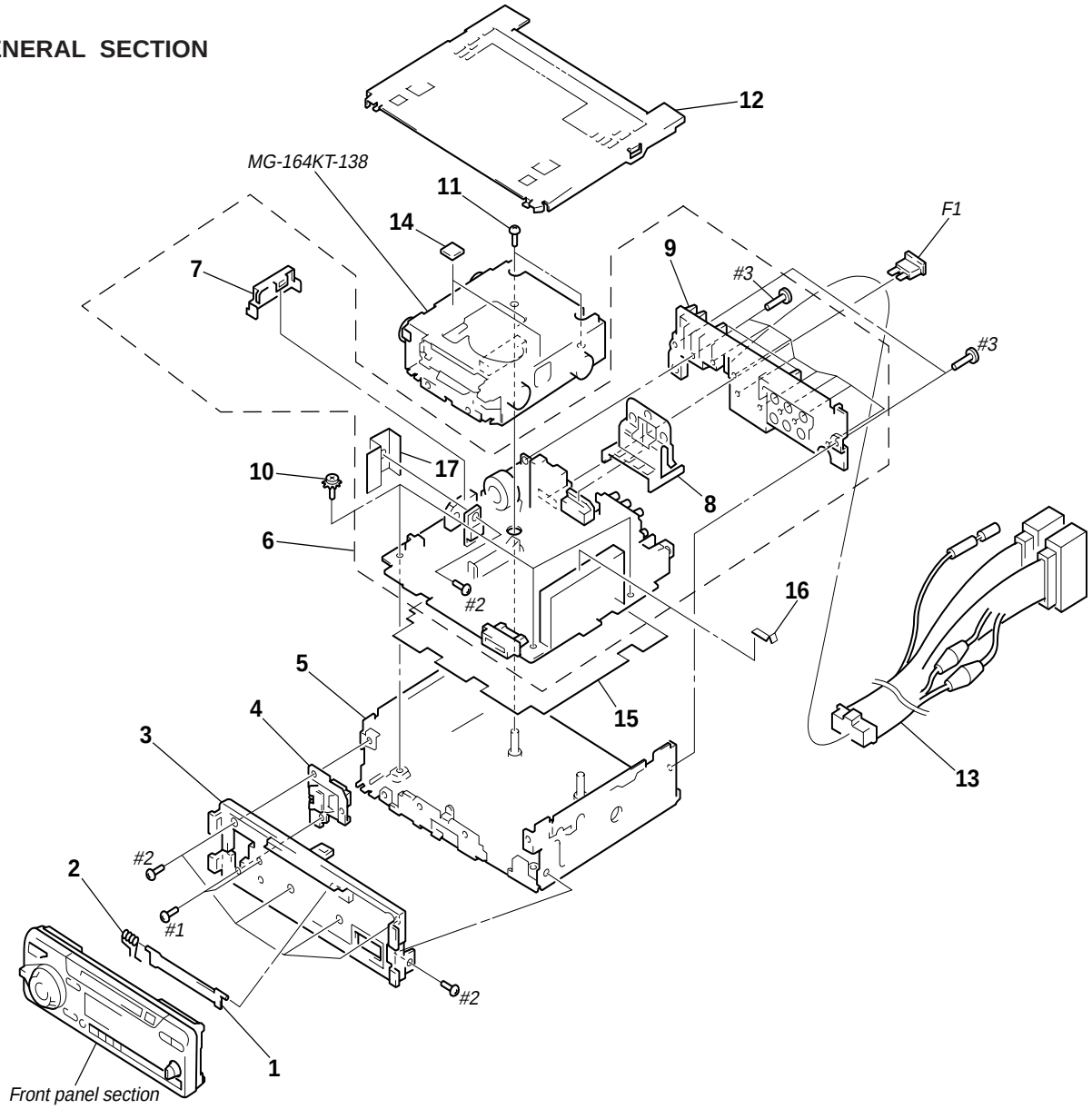
NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

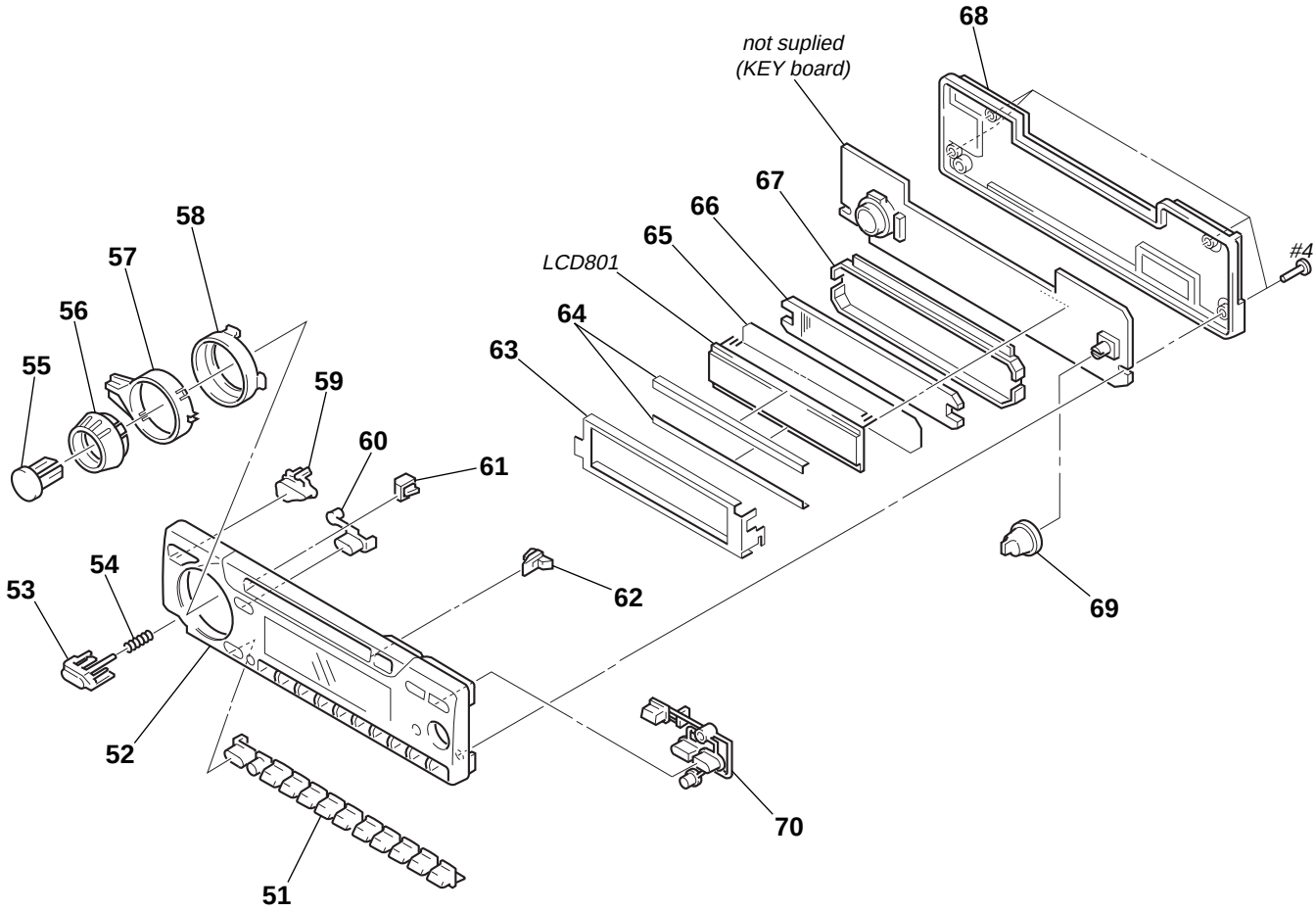
- Abbreviation
  AEP : TYPE 1 : See page 2 for Model Identification.
  AEP : TYPE 2 : See page 2 for Model Identification.

(1) GENERAL SECTION



Ref. No.	Part No.	Description	Remark
1	3-919-344-61	DOOR (MD)	
2	3-919-343-01	SPRING (DOOR), TORSION	
3	3-023-606-01	PANEL, SUB	
4	X-3367-636-1	LOCK ASSY	
* 5	X-3373-358-1	CHASSIS ASSY	
* 6	A-3294-413-A	MAIN BOARD, COMPLETE (AEP:TYPE 1)	
* 6	A-3294-414-A	MAIN BOARD, COMPLETE (AEP:TYPE 2)	
* 7	3-022-317-01	BRACKET (AMP)	
* 8	3-011-078-01	BRACKET (POWER IC)	
* 9	3-023-604-11	HEAT SINK	
10	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
11	3-932-860-01	SCREW (2.6X4) (C TIGHT), +PTT	
* 12	X-3373-362-1	COVER ASSY	
13	1-776-527-71	CORD (WITH CONNECTOR) (ISO) (POWER)	
14	3-011-999-01	CUSHION (MD)	
* 15	3-014-156-01	SHEET (INSULATING)	
* 16	3-355-209-01	PLATE (B), GROUND	
* 17	3-937-122-01	HEAT SINK	
F1	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A)	

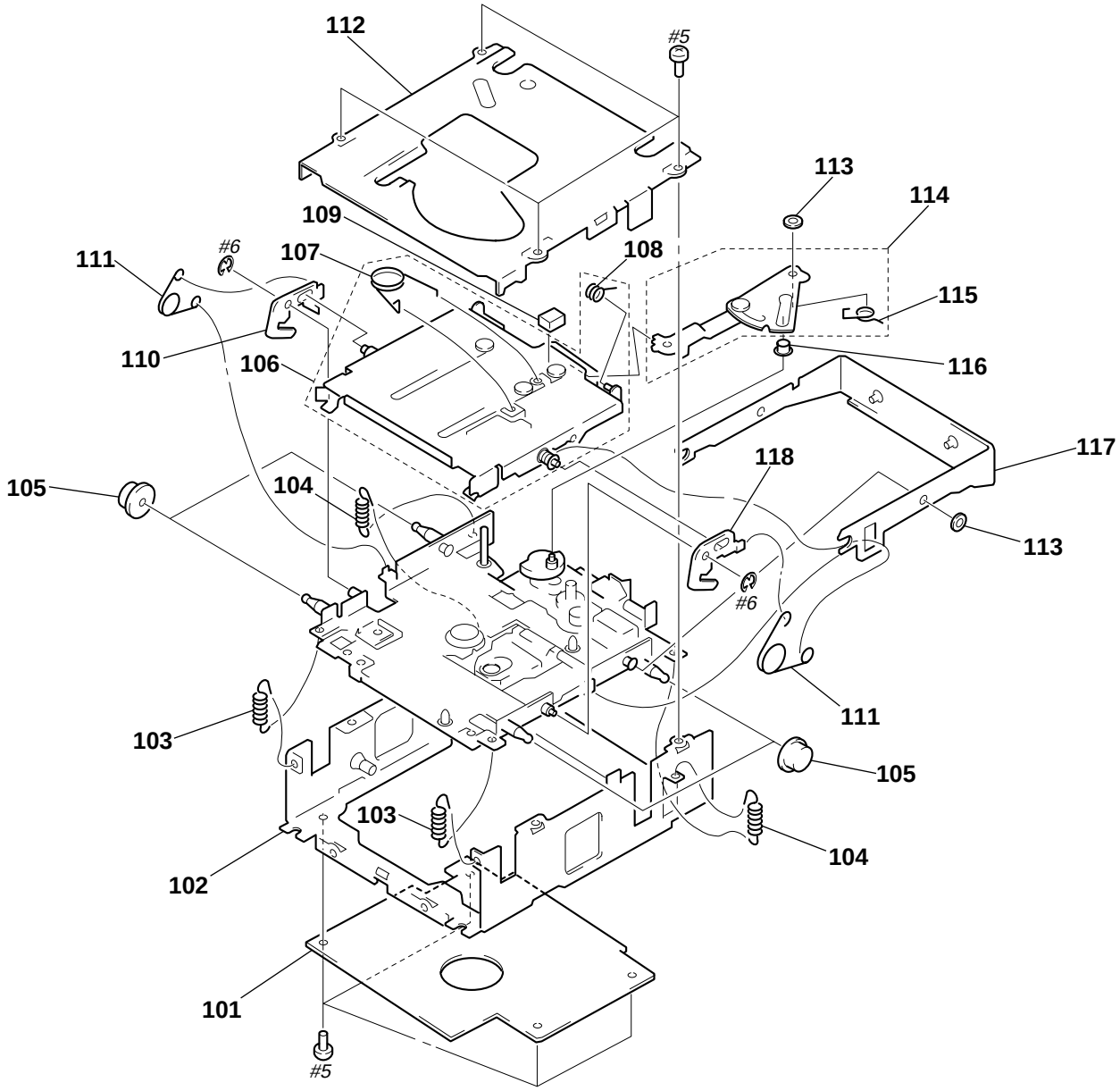
(2) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	3-023-611-01	BUTTON (10KEY) (OFF. SHIFT. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10)	
52	X-3375-316-1	PANEL ASSY, FRONT	
53	3-023-617-11	BUTTON (RELEASE)	
54	3-008-667-01	SPRING (RELEASE)	
55	3-023-626-01	BUTTON (SOURCE)	
56	3-023-612-01	KNOB (VOL)	
57	3-023-613-11	KNOB (AMS)	
58	3-023-615-01	RING, LIGHT GUIDE	
59	3-023-629-11	BUTTON (MODE)	
60	3-023-616-01	BUTTON (SOUND)	

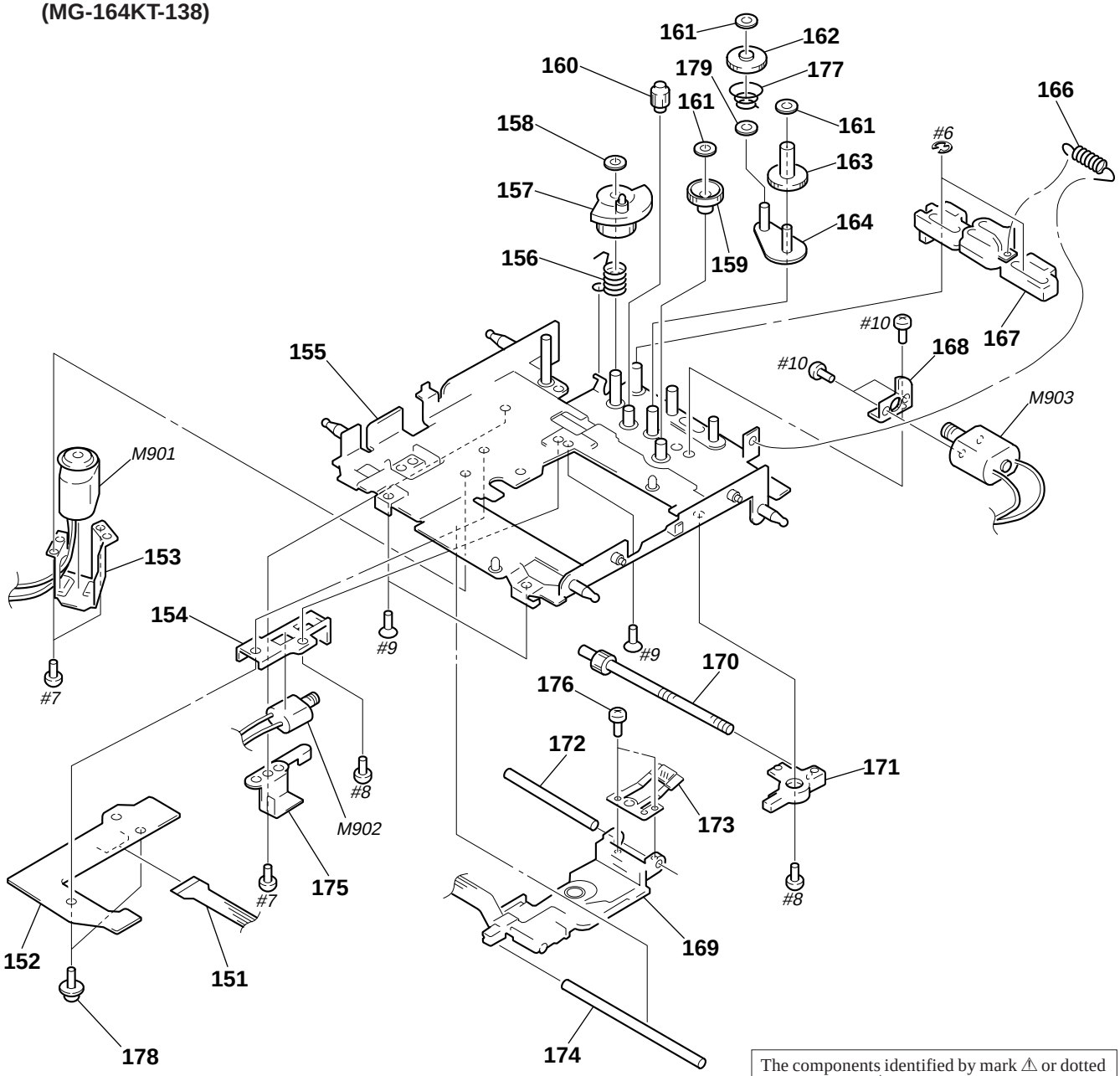
Ref. No.	Part No.	Description	Remark
61	3-023-618-01	PLATE (L), LIGHT GUIDE	
62	3-023-619-01	PLATE (R), LIGHT GUIDE	
* 63	3-023-610-01	PLATE (LCD), GROUND	
* 64	3-023-621-01	SHEET (LCD)	
* 65	3-023-624-01	ILLUMINATOR (LCD)	
* 66	3-023-609-01	PLATE (LCD), LIGHT GUIDE	
* 67	3-023-608-01	HOLDER (LCD)	
68	3-023-605-01	PANEL, BACK	
69	3-023-625-01	KNOB (D)	
70	3-023-622-01	BUTTON (EJ) (⏏ PTY. AF/TA. DSPL)	
LCD801	1-803-111-11	DISPLAY PANEL, LIQUID CRYSTAL	

(3) MECHANISM DECK SECTION-1 (MG-164KT-138)



Ref. No.	Part No.	Description	Remark
* 101	A-3313-612-A	SERVO BOARD, COMPLETE	
* 102	X-3369-440-1	CHASSIS ASSY, MD	
103	3-919-296-01	SPRING (FL), TENSION	
104	3-921-111-01	SPRING (FL2), TENSION	
105	3-919-273-01	DAMPER, OIL	
* 106	X-3369-444-1	HOLDER ASSY	
107	3-919-319-01	SPRING (HOLDER)	
108	3-919-320-01	SPRING (SUB HOLDER)	
* 109	3-919-436-01	CUSHION (EJ)	
* 110	3-919-280-01	LEVER (LOCK R)	
111	3-919-281-01	SPRING (CHKG)	
* 112	X-3369-441-1	COVER ASSY, MD	
113	3-342-940-01	WASHER (M)	
* 114	X-3369-445-1	LEVER (LE) ASSY	
115	3-919-274-01	SPRING (LE)	
116	3-925-034-01	ROLLER (GLE)	
* 117	X-3369-443-1	ARM ASSY, CHUCKING	
* 118	3-919-279-01	LEVER (LOCK L)	

(4) MECHANISM DECK SECTION-2 (MG-164KT-138)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
151	1-654-693-11	SENSOR FLEXIBLE BOARD	
152	A-3309-892-A	SENSOR BOARD, COMPLETE	
* 153	3-919-297-01	RETAINER (SP)	
* 154	3-919-284-01	BASE (SL)	
* 155	X-3369-442-1	CHASSIS (OP) ASSY	
156	3-919-339-01	SPRING (GLE)	
157	3-919-317-01	GEAR (LE)	
158	4-926-562-01	WASHER, STOPPER	
159	3-919-313-01	WHEEL, WORM	
160	3-919-316-01	GEAR (R)	
161	3-342-940-01	WASHER (M)	
162	3-919-315-01	GEAR (S)	
163	3-919-314-01	GEAR (F)	
164	X-3369-446-1	LEVER (S) ASSY	
166	3-919-282-01	SPRING (RACK), TENSION	
167	X-3369-447-1	RACK ASSY	
* 168	3-919-312-01	BRACKET (MOTOR)	
⚠169	8-583-037-02	OPTICAL PIC-UP KMS-241A/J2RP	
170	X-3373-213-1	SCREW ASSY, FEED	
* 171	3-919-294-01	BEARING (SL)	
* 172	3-919-293-01	SHAFT (SL)	
173	3-010-091-01	SPRING (SL FEED)	
* 174	3-920-537-01	SHAFT (SL2)	
* 175	3-919-283-01	BRACKET (SL)	
176	3-703-816-32	SCREW (M1.4X1.6), SPECIAL HEAD	
177	3-924-721-01	SPRING (B-T)	
178	2-626-617-01	SCREW (2X8)	
179	3-701-437-01	WASHER	
M901	A-3301-407-A	MOTOR ASSY, SP (SPINDLE)	
M902	A-3291-190-A	MOTOR ASSY, SL (SLED)	
M903	A-3291-191-A	MOTOR ASSY, LO (LOADING)	

KEY

SECTION 7
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable

- Abbreviation
  AEP : TYPE 1 : See page 2 for Model Identification.
  AEP : TYPE 2 : See page 2 for Model Identification.
  TYPE A : See page 2 for TYPE A/B Discrimination.
  TYPE B : See page 2 for TYPE A/B Discrimination.

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
		KEY BOARD			
		**********			
*	3-023-608-01	HOLDER (LCD)			
*	3-023-609-01	PLATE (LCD), LIGHT GUIDE			
*	3-023-610-01	PLATE (LCD), GROUND			
*	3-023-621-01	SHEET (LCD)			
*	3-023-624-01	ILLUMINATOR (LCD)			
		< CAPACITOR >			
C802	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C803	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C804	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C805	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C806	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C811	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C812	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C813	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C814	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C815	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
		< CONNECTOR >			
CNP801	1-764-423-11	PIN, CONNECTOR 12P			
		< DIODE >			
D802	8-719-056-83	DIODE UDZ-TE-17-6.8B			
D803	8-719-056-83	DIODE UDZ-TE-17-6.8B			
D804	8-719-056-83	DIODE UDZ-TE-17-6.8B			
D806	8-719-977-00	DIODE DTZ5.1C			
D807	8-719-977-00	DIODE DTZ5.1C			
D808	8-719-978-69	DIODE DTZ-TT11-16B			
D811	8-719-987-45	DIODE CL-155Y/PG-CD (ILLUMINATION)			
D812	8-719-987-45	DIODE CL-155Y/PG-CD (ILLUMINATION)			
D813	8-719-987-45	DIODE CL-155Y/PG-CD (MD WINDOW)			
D814	8-719-987-45	DIODE CL-155Y/PG-CD (ILLUMINATION)			
D815	8-719-987-45	DIODE CL-155Y/PG-CD (ILLUMINATION)			
D816	8-719-987-45	DIODE CL-155Y/PG-CD (ILLUMINATION)			
D817	8-719-987-45	DIODE CL-155Y/PG-CD (MD WINDOW)			
D819	8-719-977-00	DIODE DTZ5.1C			

Ref. No.	Part No.	Description	Remark
		< ROTARY ENCODER >	
EN801	1-475-014-11	ENCODER, ROTARY (VOLUME/BASS/TREBLE/BALANCE/FADER CONTROL)	
		< IC >	
IC801	8-759-496-75	IC uPD16432BGC-018-9EU	
		< LIQUID CRYSTAL DISPLAY >	
LCD801	1-803-111-11	DISPLAY PANEL, LIQUID CRYSTAL	
		< SWITCH >	
LSW801	1-762-620-11	SWITCH, KEY BOARD (WITH LED)(OFF)	
LSW802	1-762-620-11	SWITCH, KEY BOARD (WITH LED)(SOURCE)	
LSW803	1-771-290-11	SWITCH, SLIDE (SEEK/AMS)	
LSW804	1-762-620-11	SWITCH, KEY BOARD (WITH LED)(MODE)	
LSW805	1-762-937-11	SWITCH, ROTARY (D-BASS)	
LSW806	1-762-620-11	SWITCH, KEY BOARD (WITH LED)(SOUND)	
LSW807	1-762-620-11	SWITCH, KEY BOARD (WITH LED)(SHIFT)	
LSW808	1-762-620-11	SWITCH, KEY BOARD (WITH LED)(1)	
LSW809	1-762-620-11	SWITCH, KEY BOARD (WITH LED)(2)	
LSW810	1-762-620-11	SWITCH, KEY BOARD (WITH LED)(3)	
LSW811	1-762-620-11	SWITCH, KEY BOARD (WITH LED)(4)	
LSW812	1-762-620-11	SWITCH, KEY BOARD (WITH LED)(⏏)	
LSW813	1-762-620-11	SWITCH, KEY BOARD (WITH LED)(DSPL)	
LSW814	1-762-620-11	SWITCH, KEY BOARD (WITH LED)(LIST)	
LSW815	1-762-620-11	SWITCH, KEY BOARD (WITH LED)(AF/TA)	
LSW816	1-762-620-11	SWITCH, KEY BOARD (WITH LED)(10)	
LSW817	1-762-620-11	SWITCH, KEY BOARD (WITH LED)(9)	
LSW818	1-762-620-11	SWITCH, KEY BOARD (WITH LED)(8)	
LSW819	1-762-620-11	SWITCH, KEY BOARD (WITH LED)(7)	
LSW820	1-762-620-11	SWITCH, KEY BOARD (WITH LED)(6)	
LSW821	1-762-620-11	SWITCH, KEY BOARD (WITH LED)(5)	
		< PILOT LAMP >	
PL801	1-517-630-31	LAMP, PILOT (LCD BACK LIGHT)	
PL802	1-517-630-31	LAMP, PILOT (LCD BACK LIGHT)	
		< TRANSISTOR >	
Q801	8-729-424-08	TRANSISTOR UN2111	

Ref. No.	Part No.	Description			Remark
Q802	8-729-424-08	TRANSISTOR	UN2111		
Q803	8-729-904-78	TRANSISTOR	DTD113ZK		
Q804	8-729-904-66	TRANSISTOR	DTD113EK		
Q805	8-729-106-60	TRANSISTOR	2SB1115A-YQ		
Q806	8-729-026-53	TRANSISTOR	2SA1576A-T106-QR		
Q807	8-729-905-35	TRANSISTOR	2SC4081T106R		
		< RESISTOR >			
R801	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R802	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R803	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R804	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R805	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R806	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R807	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R808	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R809	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R810	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R812	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R813	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R814	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R815	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R816	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R817	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R818	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R819	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R820	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R823	1-216-028-00	METAL CHIP	130	5%	1/10W
R824	1-216-023-00	METAL CHIP	82	5%	1/10W
R827	1-216-028-00	METAL CHIP	130	5%	1/10W
R828	1-216-023-00	METAL CHIP	82	5%	1/10W
R829	1-216-028-00	METAL CHIP	130	5%	1/10W
R830	1-216-023-00	METAL CHIP	82	5%	1/10W
R831	1-216-028-00	METAL CHIP	130	5%	1/10W
R832	1-216-023-00	METAL CHIP	82	5%	1/10W
R833	1-216-028-00	METAL CHIP	130	5%	1/10W
R834	1-216-023-00	METAL CHIP	82	5%	1/10W
R835	1-216-048-00	RES,CHIP	910	5%	1/10W
R836	1-216-047-00	METAL CHIP	820	5%	1/10W
R838	1-216-028-00	METAL CHIP	130	5%	1/10W
R839	1-216-023-00	METAL CHIP	82	5%	1/10W
R840	1-216-041-00	METAL CHIP	470	5%	1/10W
R841	1-216-025-00	RES,CHIP	100	5%	1/10W
R842	1-216-048-00	RES,CHIP	910	5%	1/10W
R843	1-216-047-00	METAL CHIP	820	5%	1/10W
R845	1-216-699-11	RES,CHIP	100K	0.5%	1/10W
R846	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R847	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R849	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R850	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R852	1-216-081-00	METAL CHIP	22K	5%	1/10W
R853	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R854	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R856	1-216-049-00	METAL CHIP	470	5%	1/10W
R861	1-216-041-00	METAL CHIP	470	5%	1/10W
R862	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R863	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R865	1-216-061-00	METAL CHIP	3.3K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R866	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R867	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
		< CONPOSITION CIRCUIT BLOCK >			
RB802	1-233-810-21	RES, NETWORK 100K (3216)			
RB803	1-233-414-11	RES, CHIP NETWORK 4.7K (3216)			
**********					
*	A-3294-413-A	MAIN BOARD, COMPLETE (AEP: TYPE 1)			
*	A-3294-414-A	MAIN BOARD, COMPLETE (AEP: TYPE 2)			
		**********			
*	3-011-078-01	BRACKET (POWER IC)			
*	3-022-317-01	BRACKET (AMP)			
*	3-023-604-01	HEAT SINK			
	7-685-794-09	SCREW +PTT 2.6X10 (S)			
		< BUZZER >			
BZ1	1-504-920-11	BUZZER			
		< CAPACITOR >			
C1	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C2	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C3	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C4	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C5	1-163-063-00	CERAMIC CHIP	0.022uF	10%	50V
C6	1-163-063-00	CERAMIC CHIP	0.022uF	10%	50V
C7	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C8	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C9	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C10	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C11	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C12	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C13	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C14	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C15	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C16	1-164-232-11	CERAMIC CHIP	0.01uF	10%	50V
C17	1-126-785-11	ELECT	47uF	20%	10V
C18	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C19	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C20	1-126-514-11	ELECT	22uF	20%	16V
C21	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C22	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C23	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C25	1-126-785-11	ELECT	47uF	20%	10V
C26	1-126-382-11	ELECT	100uF	20%	16V
C27	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C28	1-126-382-11	ELECT	100uF	20%	16V
C29	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C30	1-126-382-11	ELECT	100uF	20%	16V
C31	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C32	1-126-382-11	ELECT	100uF	20%	16V
C33	1-128-241-11	ELECT	220uF	20%	10V
C34	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C35	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C37	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C40	1-104-955-11	ELECT	100uF	20%	10V
C50	1-163-038-00	CERAMIC CHIP	0.1uF		25V

MAIN

Ref. No.	Part No.	Description			Remark
C51	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C52	1-163-104-00	CERAMIC CHIP	30PF	5%	50V
C53	1-163-104-00	CERAMIC CHIP	30PF	5%	50V
C54	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C55	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C56	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C57	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C58	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C59	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C60	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C61	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C62	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C63	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C100	1-115-866-11	ELECT	4.7uF	20%	35V
C101	1-115-866-11	ELECT	4.7uF	20%	35V
C103	1-115-866-11	ELECT	4.7uF	20%	35V
C106	1-104-946-11	ELECT	10uF	20%	35V
C107	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C200	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C201	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C202	1-104-946-11	ELECT	10uF	20%	35V
C203	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C204	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C205	1-126-794-11	ELECT	4.7uF	20%	25V
C206	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C207	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C208	1-104-946-11	ELECT	10uF	20%	35V
C209	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C210	1-126-514-11	ELECT	22uF	20%	16V
C211	1-126-514-11	ELECT	22uF	20%	16V
C212	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C213	1-163-014-00	CERAMIC CHIP	0.0027uF	10%	50V
C214	1-163-014-00	CERAMIC CHIP	0.0027uF	10%	50V
C215	1-104-946-11	ELECT	10uF	20%	35V
C216	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C217	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C218	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C219	1-163-259-00	CERAMIC CHIP	220PF	5%	50V
C220	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C221	1-104-946-11	ELECT	10uF	20%	35V
C222	1-126-794-11	ELECT	4.7uF	20%	25V
C223	1-126-794-11	ELECT	4.7uF	20%	25V
C224	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C225	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C226	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C227	1-163-259-00	CERAMIC CHIP	220PF	5%	50V
C228	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C229	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C250	1-126-767-11	ELECT	1000uF	20%	16V
C251	1-124-635-00	ELECT	220uF	20%	6.3V
C252	1-163-259-00	CERAMIC CHIP	220PF	5%	50V
C253	1-126-382-11	ELECT	100uF	20%	16V
C254	1-126-514-11	ELECT	22uF	20%	16V
C255	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C256	1-126-796-11	ELECT	22uF	20%	25V
C257	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C300	1-115-872-11	ELECT	2.2uF	20%	50V
C301	1-164-506-11	CERAMIC CHIP	4.7uF		16V

Ref. No.	Part No.	Description			Remark
C302	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C303	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C304	1-115-871-11	ELECT	1uF	20%	50V
C305	1-128-428-11	ELECT	10uF	20%	35V
C306	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C307	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C308	1-128-428-11	ELECT	10uF	20%	35V
C309	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C310	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C311	1-128-428-11	ELECT	10uF	20%	35V
C312	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C313	1-126-382-11	ELECT	100uF	20%	6.3V
C314	1-115-866-11	ELECT	4.7uF	20%	35V
C315	1-115-866-11	ELECT	4.7uF	20%	35V
C316	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C317	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C320	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C321	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C322	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C323	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C324	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C325	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C400	1-115-872-11	ELECT	2.2uF	20%	50V
C401	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C402	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C403	1-164-506-11	CERAMIC CHIP	4.7uF		16V
C404	1-104-955-11	ELECT	100uF	20%	10V
C405	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C406	1-115-871-11	ELECT	1uF	20%	50V
C407	1-115-871-11	ELECT	1uF	20%	50V
C408	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C409	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C410	1-126-791-11	ELECT	10uF	20%	16V
C411	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C412	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C413	1-126-791-11	ELECT	10uF	20%	16V
C414	1-115-866-11	ELECT	4.7uF	20%	35V
C415	1-115-866-11	ELECT	4.7uF	20%	35V
C416	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C417	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C419	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C420	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C424	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C425	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C501	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C502	1-115-334-11	FILM	0.47uF	5%	50V
C503	1-107-888-11	ELECT	47uF	20%	25V
C504	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C505	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C506	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C507	1-126-016-11	ELECT	4700uF	20%	16V
C508	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C510	1-126-786-11	ELECT	47uF	20%	16V
C601	1-115-866-11	ELECT	4.7uF	20%	35V
C700	1-164-346-11	CERAMIC CHIP	1uF		16V
C701	1-115-871-11	ELECT	1uF	20%	50V
C702	1-164-505-11	CERAMIC CHIP	2.2uF		16V

Ref. No.	Part No.	Description			Remark
C703	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C704	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C705	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C706	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C707	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C708	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C709	1-163-091-00	CERAMIC CHIP	8PF	0.25PF	50V
C800	1-128-428-11	ELECT	10uF	20%	35V
C801	1-128-428-11	ELECT	10uF	20%	35V
C802	1-128-428-11	ELECT	10uF	20%	35V
C803	1-128-428-11	ELECT	10uF	20%	35V
C804	1-128-428-11	ELECT	10uF	20%	35V
C805	1-128-428-11	ELECT	10uF	20%	35V
C806	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C807	1-164-346-11	CERAMIC CHIP	1uF		16V
C900	1-115-866-11	ELECT	4.7uF	20%	35V
C901	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C902	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C903	1-104-329-11	CERAMIC CHIP	0.1uF	10%	50V
C904	1-128-241-11	ELECT	220uF	20%	10V
C905	1-125-710-11	DOUBLE LAYER	0.1F		5.5V
C914	1-163-038-00	CERAMIC CHIP	0.1uF		25V (TYPE A)
C916	1-163-038-00	CERAMIC CHIP	0.1uF		25V (TYPE A)
C917	1-124-635-00	ELECT	220uF	20%	6.3V (TYPE A)
C918	1-126-514-11	ELECT	22uF	20%	16V (TYPE A)
C920	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C990	1-164-346-11	CERAMIC CHIP	1uF		16V
C991	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C992	1-113-342-11	CERAMIC CHIP	0.1uF		50V
C993	1-164-506-11	CERAMIC CHIP	4.7uF		16V
C994	1-164-506-11	CERAMIC CHIP	4.7uF		16V
C995	1-164-506-11	CERAMIC CHIP	4.7uF		16V
C999	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
		< CONNECTOR >			
CN200	1-764-617-12	PIN, CONNECTOR (PC BOARD) 30P			
CN900	1-764-422-11	PLUG, CONNECTOR 12P			
CNJ600	1-580-907-31	PLUG, CONNECTOR (BUS CONTROL IN)			
CNP300	1-774-699-12	JACK, PIN 4P (BUS AUDIO IN/LINE OUT FRONT)			
CNP500	1-774-701-11	PIN, CONNECTOR 16P			
		< CONPOSITION CIRCUIT BLOCK >			
CP1	1-519-504-11	GAP, DISCHARGE			
		< DIODE >			
D1	8-719-977-03	DIODE DTZ5.6B			
D3	8-719-981-59	DIODE FC805			
D4	8-719-423-10	DIODE MA8100-M-TX			
D5	8-719-421-24	DIODE MA8039-H			
D200	8-719-313-73	DIODE SFPB-52			
D201	8-719-422-31	DIODE MA8047-M			
D202	8-719-423-32	DIODE MA8120-M			
D301	8-719-914-42	DIODE DA204K			
D302	8-719-914-42	DIODE DA204K			

Ref. No.	Part No.	Description			Remark
D303	8-719-421-27	DIODE MA728			
D500	8-719-988-62	DIODE 1SS355			
D501	8-719-017-62	DIODE MA8068-L-TX			
D502	8-719-052-59	DIODE 1N5404TU-15			
D503	8-719-053-18	DIODE 1SR154-400TE-25			
D504	8-719-053-18	DIODE 1SR154-400TE-25			
D505	8-719-053-18	DIODE 1SR154-400TE-25			
D506	8-719-053-18	DIODE 1SR154-400TE-25			
D507	8-719-053-18	DIODE 1SR154-400TE-25			
D508	8-719-053-18	DIODE 1SR154-400TE-25			
D509	8-719-053-18	DIODE 1SR154-400TE-25			
D510	8-719-053-18	DIODE 1SR154-400TE-25			
D600	8-719-057-80	DIODE MA8160-M-TX			
D601	8-719-057-80	DIODE MA8160-M-TX			
D602	8-719-017-62	DIODE MA8068-L-TX			
D603	8-719-022-90	DIODE MA8160M			
D604	8-719-017-62	DIODE MA8068-L-TX			
D700	1-216-049-11	RES,CHIP	1K	5%	1/10W
D701	8-719-914-43	DIODE DAN202K			
D702	8-719-914-44	DIODE DAP202K			
D800	8-719-053-18	DIODE 1SR154-400TE-25			
D801	8-719-053-18	DIODE 1SR154-400TE-25			
D802	8-719-988-62	DIODE 1SS355			
D803	8-719-400-20	DIODE MA152WA			
D900	8-719-988-62	DIODE 1SS355			
D901	8-719-423-23	DIODE MA8110-M			
D902	8-719-017-62	DIODE MA8068-L-TX			
D903	8-719-017-62	DIODE MA8068-L-TX			
D904	8-719-017-62	DIODE MA8068-L-TX			
D905	8-719-017-62	DIODE MA8068-L-TX			
D906	8-719-017-62	DIODE MA8068-L-TX			
D907	8-719-017-62	DIODE MA8068-L-TX			
D908	8-719-017-62	DIODE MA8068-L-TX			
D909	8-719-017-62	DIODE MA8068-L-TX			
D910	8-719-017-62	DIODE MA8068-L-TX			
D911	8-719-423-32	DIODE MA8120-M			
D912	8-719-914-44	DIODE DAP202K			
D913	8-719-420-14	DIODE MA8082-M			
D914	8-719-053-18	DIODE 1SR154-400TE-25 (TYPE A)			
D916	8-719-404-49	DIODE MA111			
		< IC >			
IC100	8-759-448-85	IC BU2624FV-E2			
IC102	8-759-492-59	IC SAA6588T-118			
IC103	8-759-184-64	IC TC4W66FU			
IC200	8-759-158-96	IC TC9246F-TP1			
IC201	8-759-473-70	IC SM5852FS-E2			
IC202	8-759-464-81	IC PCM1717E-ST2			
IC203	8-759-711-82	IC NJM4580E			
IC204	8-759-238-47	IC TC74HCT7007AF(EL)			
IC250	8-759-337-67	IC NJM2360AM(TE2)			
IC300	8-759-487-82	IC LC75374E			
IC500	8-759-490-74	IC TDA7384			
IC600	8-759-449-89	IC BA8270F-E2			
IC700	8-759-532-49	IC MB90574PFV-G-113-BND (TYPE A)			
IC700	8-759-536-84	IC MB90F574PFV-G-113 (TYPE B)			
IC800	8-759-347-50	IC BA3918-V3			

MAIN

Ref. No.	Part No.	Description	Remark
IC801	8-759-363-81	IC XC61AN4002PR	
IC802	8-759-344-91	IC RN5VD23AA-TL	
IC900	8-759-496-74	IC TA78DL06S (TYPE A)	
		< JACK >	
J1	1-764-808-31	JACK (ANT)(FM/AM ANTENNA)	
J900	1-566-822-41	JACK (REMOTE IN)	
		< COIL >	
L1	1-412-951-11	INDUCTOR CHIP 10uH	
L2	1-216-296-00	SHORT 0	
L3	1-412-055-11	INDUCTOR CHIP 3.3uH	
L50	1-412-951-11	INDUCTOR 10uH	
L200	1-412-955-11	INDUCTOR 22uH	
L201	1-412-955-11	INDUCTOR 22uH	
L202	1-412-955-11	INDUCTOR 22uH	
L230	1-412-955-11	INDUCTOR 22uH	
L231	1-412-955-11	INDUCTOR 22uH	
L250	1-412-533-21	INDUCTOR 47uH	
L251	1-412-537-31	INDUCTOR 100uH	
L252	1-412-533-21	INDUCTOR 47uH	
L500	1-416-712-21	COIL, CHOKE 4700uH	
L700	1-412-058-11	INDUCTOR CHIP 10uH	
L800	1-414-546-11	INDUCTOR 22uH	
		< TRANSISTOR >	
Q1	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q2	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q4	8-729-021-94	TRANSISTOR 2SK1657-T1B	
Q5	8-729-900-53	TRANSISTOR DTC114EK	
Q6	8-729-920-85	TRANSISTOR 2SD1664-QR	
Q50	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q51	8-729-020-67	TRANSISTOR XN1A312-TX	
Q100	8-729-920-21	TRANSISTOR DTC314TKH04	
Q101	8-729-920-21	TRANSISTOR DTC314TKH04	
Q102	8-729-920-21	TRANSISTOR DTC314TKH04	
Q103	8-729-020-67	TRANSISTOR XN1A312-TX	
Q250	8-729-106-60	TRANSISTOR 2SB1115A	
Q251	8-729-900-53	TRANSISTOR DTC114EK	
Q252	8-729-920-85	TRANSISTOR 2SD1664-QR	
Q253	8-729-020-67	TRANSISTOR XN1A312-TX	
Q254	8-729-807-12	TRANSISTOR 2SD1802-S	
Q255	8-729-020-67	TRANSISTOR XN1A312-TX	
Q301	8-729-920-21	TRANSISTOR DTC314TKH04	
Q302	8-729-920-21	TRANSISTOR DTC314TKH04	
Q303	8-729-920-21	TRANSISTOR DTC314TKH04	
Q401	8-729-920-21	TRANSISTOR DTC314TKH04	
Q402	8-729-920-21	TRANSISTOR DTC314TKH04	
Q403	8-729-920-21	TRANSISTOR DTC314TKH04	
Q500	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q600	8-729-424-08	TRANSISTOR UN2111	
Q601	8-729-421-22	TRANSISTOR UN2211	
Q603	8-729-920-21	TRANSISTOR DTC314TKH04	
Q700	8-729-424-08	TRANSISTOR UN2111	
Q701	8-729-421-22	TRANSISTOR UN2211	
Q900	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q901	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q902	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q903	8-729-026-68	TRANSISTOR 2SD2525(TP)	
Q904	8-729-026-68	TRANSISTOR 2SD2525(TP)	
Q905	8-729-924-73	TRANSISTOR FMA9	
Q906	8-729-921-25	TRANSISTOR FMC2	
Q991	8-729-920-21	TRANSISTOR DTC314TKH04	
Q992	8-729-920-21	TRANSISTOR DTC314TKH04	
Q993	8-729-424-08	TRANSISTOR UN2111	
		< RESISTOR >	
R1	1-216-049-11	RES,CHIP 1K 5% 1/10W	
R2	1-216-041-11	METAL CHIP 470 5% 1/10W	
R3	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R4	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R5	1-216-049-11	RES,CHIP 1K 5% 1/10W	
R6	1-216-037-00	METAL CHIP 330 5% 1/10W	
R7	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R8	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R10	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R11	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
R12	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R13	1-216-295-00	SHORT 0	
R14	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R15	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R16	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
R17	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
R18	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R20	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R21	1-216-041-11	METAL CHIP 470 5% 1/10W	
R22	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R30	1-216-238-00	RES,CHIP 47K 5% 1/8W	
R31	1-216-198-00	RES,CHIP 1K 5% 1/8W	
R33	1-216-295-00	SHORT 0	
R50	1-216-097-00	RES,CHIP 100K 5% 1/10W	
R51	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R52	1-216-049-11	RES,CHIP 1K 5% 1/10W	
R53	1-216-049-11	RES,CHIP 1K 5% 1/10W	
R55	1-216-041-00	METAL CHIP 470 5% 1/10W	
R56	1-216-035-00	METAL CHIP 270 5% 1/10W	
R57	1-216-035-00	METAL CHIP 270 5% 1/10W	
R58	1-216-001-00	METAL CHIP 10 5% 1/10W	
R103	1-216-033-00	METAL CHIP 220 5% 1/10W	(AEP: TYPE 1)
R103	1-216-073-00	METAL CHIP 10K 5% 1/10W	(AEP: TYPE 2)
R104	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R105	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R106	1-216-033-00	METAL CHIP 220 5% 1/10W	(AEP: TYPE 1)
R106	1-216-073-00	METAL CHIP 10K 5% 1/10W	(AEP: TYPE 2)
R107	1-216-295-00	SHORT 0	
R109	1-216-089-00	RES,CHIP 47K 5% 1/10W	
R111	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R112	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R114	1-216-089-00	RES,CHIP 47K 5% 1/10W	
R116	1-216-295-00	SHORT 0	
R200	1-216-025-00	RES,CHIP 100 5% 1/10W	
R201	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	

Ref. No.	Part No.	Description			Remark
R202	1-216-091-00	METAL CHIP	56K	5%	1/10W
R203	1-216-025-00	RES,CHIP	100	5%	1/10W
R204	1-216-027-00	METAL CHIP	120	5%	1/10W
R205	1-216-025-00	RES,CHIP	100	5%	1/10W
R206	1-216-025-00	RES,CHIP	100	5%	1/10W
R207	1-216-025-00	RES,CHIP	100	5%	1/10W
R208	1-216-025-00	RES,CHIP	100	5%	1/10W
R209	1-216-025-00	RES,CHIP	100	5%	1/10W
R210	1-216-025-00	RES,CHIP	100	5%	1/10W
R211	1-216-025-00	RES,CHIP	100	5%	1/10W
R212	1-216-073-00	METAL CHIP	10K	5%	1/10W
R214	1-216-064-00	METAL CHIP	4.3K	5%	1/10W
R215	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R216	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R217	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R218	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R219	1-216-064-00	METAL CHIP	4.3K	5%	1/10W
R220	1-216-025-00	RES,CHIP	100	5%	1/10W
R221	1-216-025-00	RES,CHIP	100	5%	1/10W
R222	1-216-025-00	RES,CHIP	100	5%	1/10W
R224	1-216-073-00	METAL CHIP	10K	5%	1/10W
R225	1-216-073-00	METAL CHIP	10K	5%	1/10W
R227	1-216-089-00	RES,CHIP	47K	5%	1/10W
R228	1-216-089-00	RES,CHIP	47K	5%	1/10W
R229	1-216-295-00	SHORT	0		
R230	1-216-025-00	RES,CHIP	100	5%	1/10W
R231	1-216-025-00	RES,CHIP	100	5%	1/10W
R232	1-216-025-00	RES,CHIP	100	5%	1/10W
R250	1-219-986-11	METAL CHIP	0.2	1%	1/4W
R255	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R256	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R257	1-216-073-00	METAL CHIP	10K	5%	1/10W
R258	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R259	1-216-190-00	RES,CHIP	470	5%	1/8W
R260	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R302	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R303	1-216-062-00	METAL CHIP	3.6K	5%	1/10W
R304	1-216-033-00	METAL CHIP	220	5%	1/10W
R305	1-216-081-00	METAL CHIP	22K	5%	1/10W
R308	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R309	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R310	1-216-089-00	RES,CHIP	47K	5%	1/10W
R311	1-216-089-00	RES,CHIP	47K	5%	1/10W
R312	1-216-075-00	METAL CHIP	12K	5%	1/10W
R313	1-216-073-00	METAL CHIP	10K	5%	1/10W
R402	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R404	1-216-062-00	METAL CHIP	3.6K	5%	1/10W
R405	1-216-033-00	METAL CHIP	220	5%	1/10W
R406	1-216-081-00	METAL CHIP	22K	5%	1/10W
R409	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R410	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R411	1-216-089-00	RES,CHIP	47K	5%	1/10W
R412	1-216-089-00	RES,CHIP	47K	5%	1/10W
R413	1-216-073-00	METAL CHIP	10K	5%	1/10W
R414	1-216-075-00	METAL CHIP	12K	5%	1/10W
R500	1-216-049-11	RES,CHIP	1K	5%	1/10W
R501	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R502	1-216-073-00	METAL CHIP	10K	5%	1/10W
R503	1-216-073-00	METAL CHIP	10K	5%	1/10W
R504	1-216-073-00	METAL CHIP	10K	5%	1/10W
R505	1-216-085-00	METAL CHIP	33K	5%	1/10W
R506	1-216-073-00	METAL CHIP	10K	5%	1/10W
R600	1-216-025-00	RES,CHIP	100	5%	1/10W
R601	1-216-073-00	METAL CHIP	10K	5%	1/10W
R602	1-216-097-00	RES,CHIP	100K	5%	1/10W
R603	1-216-150-00	RES,CHIP	10	5%	1/8W
R700	1-216-073-00	METAL CHIP	10K	5%	1/10W
R701	1-216-073-00	METAL CHIP	10K	5%	1/10W
R702	1-216-037-00	METAL CHIP	330	5%	1/10W
R703	1-216-049-11	RES,CHIP	1K	5%	1/10W
R705	1-216-295-00	SHORT	0		
R706	1-216-097-00	RES,CHIP	100K	5%	1/10W
R708	1-216-295-00	SHORT	0		
R709	1-216-089-00	RES,CHIP	47K	5%	1/10W
R711	1-216-295-00	SHORT	0		
R712	1-216-037-00	METAL CHIP	330	5%	1/10W
R713	1-216-097-00	RES,CHIP	100K	5%	1/10W
R714	1-216-097-00	RES,CHIP	100K	5%	1/10W
R715	1-216-025-00	RES,CHIP	100	5%	1/10W
R716	1-216-025-00	RES,CHIP	100	5%	1/10W
R717	1-216-025-00	RES,CHIP	100	5%	1/10W
R718	1-216-025-00	RES,CHIP	100	5%	1/10W
R719	1-216-025-00	RES,CHIP	100	5%	1/10W
R720	1-216-025-00	RES,CHIP	100	5%	1/10W
R721	1-216-025-00	RES,CHIP	100	5%	1/10W
R722	1-216-025-00	RES,CHIP	100	5%	1/10W
R723	1-216-025-00	RES,CHIP	100	5%	1/10W
R724	1-216-025-00	RES,CHIP	100	5%	1/10W
R725	1-216-025-00	RES,CHIP	100	5%	1/10W
R726	1-216-025-00	RES,CHIP	100	5%	1/10W
R727	1-216-049-11	RES,CHIP	1K	5%	1/10W
R728	1-216-049-11	RES,CHIP	1K	5%	1/10W
R729	1-216-025-00	RES,CHIP	100	5%	1/10W
R730	1-216-025-00	RES,CHIP	100	5%	1/10W
R731	1-216-025-00	RES,CHIP	100	5%	1/10W
R732	1-216-025-00	RES,CHIP	100	5%	1/10W
R733	1-216-049-11	RES,CHIP	1K	5%	1/10W
R734	1-216-025-00	RES,CHIP	100	5%	1/10W
R735	1-216-033-00	RES,CHIP	220	5%	1/10W
R736	1-216-033-00	RES,CHIP	220	5%	1/10W
R737	1-216-025-00	RES,CHIP	100	5%	1/10W
R738	1-216-025-00	RES,CHIP	100	5%	1/10W
R739	1-216-025-00	RES,CHIP	100	5%	1/10W
R740	1-216-025-00	RES,CHIP	100	5%	1/10W
R741	1-216-025-00	RES,CHIP	100	5%	1/10W
R742	1-216-025-00	RES,CHIP	100	5%	1/10W
R743	1-216-025-00	RES,CHIP	100	5%	1/10W
R744	1-216-025-00	RES,CHIP	100	5%	1/10W
R745	1-216-025-00	RES,CHIP	100	5%	1/10W
R746	1-216-025-00	RES,CHIP	100	5%	1/10W
R747	1-216-025-00	RES,CHIP	100	5%	1/10W
R748	1-216-025-00	RES,CHIP	100	5%	1/10W
R749	1-216-025-00	RES,CHIP	100	5%	1/10W
R750	1-216-025-00	RES,CHIP	100	5%	1/10W
R751	1-216-025-00	RES,CHIP	100	5%	1/10W

MAIN **SERVO**

Ref. No.	Part No.	Description			Remark
R752	1-216-025-00	RES,CHIP	100	5%	1/10W
R753	1-216-025-00	RES,CHIP	100	5%	1/10W
R754	1-216-025-00	RES,CHIP	100	5%	1/10W
R757	1-216-025-00	RES,CHIP	100	5%	1/10W
R758	1-216-025-00	RES,CHIP	100	5%	1/10W
R759	1-216-025-00	RES,CHIP	100	5%	1/10W
R760	1-216-025-00	RES,CHIP	100	5%	1/10W
R761	1-216-025-00	RES,CHIP	100	5%	1/10W
R762	1-216-025-00	RES,CHIP	100	5%	1/10W
R763	1-216-025-00	RES,CHIP	100	5%	1/10W
R764	1-216-025-00	RES,CHIP	100	5%	1/10W
R770	1-216-097-00	RES,CHIP	100K	5%	1/10W
R771	1-216-097-00	RES,CHIP	100K	5%	1/10W
R772	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R773	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R774	1-216-097-00	RES,CHIP	100K	5%	1/10W
R775	1-216-097-00	RES,CHIP	100K	5%	1/10W
R777	1-216-097-00	RES,CHIP	100K	5%	1/10W
R781	1-216-097-00	RES,CHIP	100K	5%	1/10W
R783	1-216-097-00	RES,CHIP	100K	5%	1/10W
R800	1-216-113-00	METAL CHIP	470K	5%	1/10W
R801	1-216-097-00	RES,CHIP	100K	5%	1/10W
R897	1-216-001-00	RES,CHIP	10	5%	1/10W
R900	1-216-222-00	RES,CHIP	10K	5%	1/8W
R901	1-216-089-00	RES,CHIP	47K	5%	1/10W
R902	1-216-089-00	RES,CHIP	47K	5%	1/10W
R903	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R904	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R905	1-216-073-00	METAL CHIP	10K	5%	1/10W
R906	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R907	1-216-037-00	METAL CHIP	330	5%	1/10W
R908	1-216-037-00	METAL CHIP	330	5%	1/10W
R909	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R910	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R911	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R912	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R913	1-216-025-00	RES,CHIP	100	5%	1/10W
R914	1-216-025-00	RES,CHIP	100	5%	1/10W
R915	1-216-025-00	RES,CHIP	100	5%	1/10W
R916	1-216-097-00	RES,CHIP	100K	5%	1/10W
R917	1-216-097-00	RES,CHIP	100K	5%	1/10W
R918	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R919	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R920	1-216-025-00	RES,CHIP	100	5%	1/10W
R921	1-216-025-00	RES,CHIP	100	5%	1/10W
R924	1-216-295-00	SHORT	0 (TYPE B)		
R930	1-216-073-00	METAL CHIP	10K	5%	1/10W
R981	1-216-121-00	METAL CHIP	1M	5%	1/10W
R990	1-216-198-00	METAL CHIP	1K	5%	1/8W
R991	1-216-097-00	METAL CHIP	100K	5%	1/10W
R992	1-216-097-00	METAL CHIP	100K	5%	1/10W
R993	1-216-097-00	METAL CHIP	100K	5%	1/10W
R994	1-216-097-00	METAL CHIP	100K	5%	1/10W
R995	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R996	1-216-097-00	METAL CHIP	100K	5%	1/10W
R997	1-216-295-00	SHORT	0		
R999	1-216-061-00	METAL CHIP	3.3K	5%	1/10W

Ref. No.	Part No.	Description	Remark
		< CONPOSITION CIRCUIT BLOCK >	
RB900	1-233-412-11	RES, CHIP NETWORK 1.0K (3216)	
RB901	1-233-412-11	RES, CHIP NETWORK 1.0K (3216)	
		< VARIABLE RESISTOR >	
RV1	1-223-591-11	RES, ADJ, CARBON 470K	
		< SWITCH >	
S700	1-572-552-21	SWITCH, SLIDE (POWER SELECT)	
S900	1-692-431-21	SWITCH, TACTILE (RESET)	
		< THERMISTOR >	
TH600	1-801-792-21	THERMISTOR, POSITIVE	
		< TUNER >	
TU1	A-3282-029-A	TUNER UNIT TUX-006/2 (E)	
		< VIBRATOR >	
X1	1-760-838-21	VIBRATOR, CRYSTAL (7.2MHz)	
X2	1-579-242-11	VIBRATOR, CRYSTAL (4.332MHz)	
X700	1-767-833-21	VIBRATOR, CERAMIC (3.68MHz)	
X701	1-579-886-21	VIBRATOR, CRYSTAL (32kHz)	

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*	A-3313-612-A	SERVO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C301	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C302	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C303	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C305	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C306	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C307	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C308	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C309	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C310	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C311	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C314	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C315	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C316	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C317	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C318	1-104-852-11	TANTAL. CHIP	22uF	20%	6.3V
C319	1-104-852-11	TANTAL. CHIP	22uF	20%	6.3V
C320	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C321	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C322	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C324	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C325	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C326	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C327	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C328	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C329	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C330	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C331	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C333	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C334	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V

Ref. No.	Part No.	Description			Remark
C335	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C336	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C337	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C338	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C339	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C340	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C341	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C342	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C343	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C344	1-104-852-11	TANTAL. CHIP	22uF	20%	6.3V
C345	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C346	1-104-852-11	TANTAL. CHIP	22uF	20%	6.3V
C347	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C348	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C349	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C350	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C351	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C352	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C353	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C356	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C357	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C358	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C359	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C361	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C362	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C402	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C403	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C501	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C503	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C504	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C505	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C506	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C510	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C511	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C512	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C513	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C514	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C515	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C516	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
CN101	1-779-389-21	HOUSING,CONNECTOR(PC BOARD)30P			
CN102	1-573-929-11	CONNECTOR, FFC/FPC (ZIF) 20P			
CN103	1-764-439-21	CONNECTOR, FPC 11P			
		< DIODE >			
D401	8-719-157-93	DIODE RD3.0SB2			
D501	8-719-988-62	DIODE 1SS355			
		< FERRITE BEAD >			
FB301	1-414-235-11	INDUCTOR CHIP 0uH			
FB302	1-414-385-11	INDUCTOR CHIP 0uH			
		< IC >			
IC301	8-752-384-47	IC CXD2652AR			
IC302	8-752-074-77	IC CXA2523R			
IC303	8-759-430-25	IC BH6511FS-E2			
IC304	8-759-096-87	IC TC7WU04FU(TE12R)			
IC305	8-759-040-83	IC BA6287F			
IC306	8-759-058-62	IC TC7S08FU(TE85R)			
IC307	8-759-498-44	IC MSM51V4400-70TS-K			
IC401	8-759-909-71	IC BA4558F			
IC501	8-752-893-33	IC CXP84340-089Q			
IC502	8-759-238-47	IC TC74HCT7007AF(EL)			
IC503	8-759-238-47	IC TC74HCT7007AF(EL)			
		< COIL >			
L301	1-412-058-11	INDUCTOR CHIP 10uH			
L302	1-412-058-11	INDUCTOR CHIP 10uH			
L303	1-412-039-51	INDUCTOR CHIP 100uH			
L304	1-412-039-51	INDUCTOR CHIP 100uH			
L305	1-412-039-51	INDUCTOR CHIP 100uH			
L306	1-412-039-51	INDUCTOR CHIP 100uH			
L501	1-412-058-11	INDUCTOR CHIP 10uH			
		< TRANSISTOR >			
Q301	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q302	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q401	8-729-920-85	TRANSISTOR 2SD1664-QR			
Q402	8-729-106-60	TRANSISTOR 2SB1115A			
Q403	8-729-421-22	TRANSISTOR UN2211			
		< RESISTOR >			
R301	1-216-809-11	METAL CHIP	100	5%	1/16W
R302	1-216-809-11	METAL CHIP	100	5%	1/16W
R303	1-216-809-11	METAL CHIP	100	5%	1/16W
R304	1-216-809-11	METAL CHIP	100	5%	1/16W
R305	1-216-809-11	METAL CHIP	100	5%	1/16W
R306	1-216-809-11	METAL CHIP	100	5%	1/16W
R307	1-216-809-11	METAL CHIP	100	5%	1/16W
R308	1-216-809-11	METAL CHIP	100	5%	1/16W
R310	1-216-821-11	METAL CHIP	1K	5%	1/16W
R313	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R314	1-216-821-11	METAL CHIP	1K	5%	1/16W
R315	1-216-809-11	METAL CHIP	100	5%	1/16W
R318	1-216-833-11	METAL CHIP	10K	5%	1/16W
R319	1-216-845-11	METAL CHIP	100K	5%	1/16W
R320	1-216-855-11	METAL CHIP	680K	5%	1/16W
R324	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R325	1-216-821-11	METAL CHIP	1K	5%	1/16W
R327	1-216-821-11	METAL CHIP	1K	5%	1/16W
R328	1-216-811-11	METAL CHIP	150	5%	1/16W
R329	1-216-819-11	METAL CHIP	680	5%	1/16W
R330	1-216-853-11	METAL CHIP	470K	5%	1/16W
R331	1-216-809-11	METAL CHIP	100	5%	1/16W
R332	1-216-809-11	METAL CHIP	100	5%	1/16W
R333	1-216-819-11	METAL CHIP	680	5%	1/16W
R334	1-216-809-11	METAL CHIP	100	5%	1/16W
R335	1-216-815-11	METAL CHIP	330	5%	1/16W
R336	1-216-853-11	METAL CHIP	470K	5%	1/16W
R337	1-216-853-11	METAL CHIP	470K	5%	1/16W
R338	1-216-833-11	METAL CHIP	10K	5%	1/16W
R339	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R340	1-216-843-11	METAL CHIP	68K	5%	1/16W

SERVO

Ref. No.	Part No.	Description			Remark
R341	1-216-837-11	METAL CHIP	22K	5%	1/16W
R342	1-216-833-11	METAL CHIP	10K	5%	1/16W
R343	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R344	1-216-833-11	METAL CHIP	10K	5%	1/16W
R345	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R346	1-216-841-11	METAL CHIP	47K	5%	1/16W
R347	1-216-833-11	METAL CHIP	10K	5%	1/16W
R348	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R349	1-216-025-00	RES,CHIP	100	5%	1/10W
R350	1-216-142-00	RES,CHIP	4.7	5%	1/8W
R351	1-218-700-11	METAL CHIP	2.2K	0.50%	1/16W
R352	1-218-700-11	METAL CHIP	2.2K	0.50%	1/16W
R353	1-218-700-11	METAL CHIP	2.2K	0.50%	1/16W
R354	1-216-857-11	METAL CHIP	1M	5%	1/16W
R355	1-216-833-11	METAL CHIP	10K	5%	1/16W
R356	1-216-833-11	METAL CHIP	10K	5%	1/16W
R357	1-216-017-00	RES,CHIP	47	5%	1/10W
R401	1-216-073-00	METAL CHIP	10K	5%	1/10W
R402	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R403	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R404	1-216-809-11	METAL CHIP	100	5%	1/16W
R405	1-218-692-11	METAL CHIP	1K	0.50%	1/16W
R406	1-218-714-11	METAL CHIP	8.2K	0.50%	1/16W
R501	1-216-821-11	METAL CHIP	1K	5%	1/16W
R502	1-216-821-11	METAL CHIP	1K	5%	1/16W
R503	1-216-821-11	METAL CHIP	1K	5%	1/16W
R504	1-216-821-11	METAL CHIP	1K	5%	1/16W
R505	1-216-821-11	METAL CHIP	1K	5%	1/16W
R506	1-216-845-11	METAL CHIP	100K	5%	1/16W
R507	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R510	1-216-845-11	METAL CHIP	100K	5%	1/16W
R512	1-216-845-11	METAL CHIP	100K	5%	1/16W
R516	1-216-809-11	METAL CHIP	100	5%	1/16W
R517	1-216-809-11	METAL CHIP	100	5%	1/16W
R518	1-216-809-11	METAL CHIP	100	5%	1/16W
R519	1-216-809-11	METAL CHIP	100	5%	1/16W
R520	1-216-809-11	METAL CHIP	100	5%	1/16W
R521	1-216-809-11	METAL CHIP	100	5%	1/16W
R522	1-216-821-11	METAL CHIP	1K	5%	1/16W
R523	1-216-821-11	METAL CHIP	1K	5%	1/16W
R524	1-216-821-11	METAL CHIP	1K	5%	1/16W
R525	1-216-845-11	METAL CHIP	100K	5%	1/16W
R526	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R527	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R528	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R529	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R530	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R531	1-216-845-11	METAL CHIP	100K	5%	1/16W
R532	1-216-864-11	METAL CHIP	0	5%	1/16W
R533	1-216-845-11	METAL CHIP	100K	5%	1/16W
R534	1-216-845-11	METAL CHIP	100K	5%	1/16W
R535	1-216-845-11	METAL CHIP	100K	5%	1/16W
R536	1-216-864-11	METAL CHIP	0	5%	1/16W
R537	1-216-809-11	METAL CHIP	100	5%	1/16W
R538	1-216-845-11	METAL CHIP	100K	5%	1/16W
R540	1-216-845-11	METAL CHIP	100K	5%	1/16W
R542	1-216-845-11	METAL CHIP	100K	5%	1/16W
R545	1-216-864-11	METAL CHIP	0	5%	1/16W

< CONPOSITION CIRCUIT BLOCK >

RB301	1-233-576-11	RES, CHIP NETWORK 100			
RB302	1-233-576-11	RES, CHIP NETWORK 100			
RB503	1-233-412-11	RES, CHIP NETWORK 1.0K (3216)			

< THERMISTOR >

TH501	1-810-421-11	THERMISTOR NTH5G36B103K01TE			

< VIBRATOR >

X301	1-767-429-21	VIBRATOR, CRYSTAL (22.5792MHz)			
X501	1-760-365-11	VIBRATOR, CERAMIC (10MHz)			

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MISCELLANEOUS
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13	1-776-527-71	CORD (WITH CONNECTOR) (ISO) (POWER)			
151	1-654-693-11	SENSOR FLEXIBLE BOARD			
⚠169	8-583-037-02	OPTICAL PIC-UP KMS-241A/J2RP			
F1	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A)			
M901	A-3301-407-A	MOTOR ASSY, SP (SPINDLE)			
M902	A-3291-190-A	MOTOR ASSY, SL (SLED)			
M903	A-3291-191-A	MOTOR ASSY, LO (LOADING)			

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HARDWARE LIST
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#1	7-621-772-10	SCREW +B 2X4			
#2	7-685-792-09	SCREW +PTT 2.6X6 (S)			
#3	7-685-794-09	SCREW +PTT 2.6X10 (S)			
#4	7-685-106-19	SCREW +P 2X10 TYPE2 NON-SLIT			
#5	7-685-851-04	SCREW +BVTT 2X4 (S)			
#6	7-624-102-04	STOP RING 1.5, TYPE -E			
#7	7-627-852-37	PRECISION SCREW +P 1.7X1.8 TYPE3			
#8	7-621-772-08	SCREW +B 2X3			
#9	7-621-555-10	SCREW +K 2X3			
#10	7-627-554-07	SCREW,PRECISION +P 2X2.2			

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ACCESSORIES & PACKING MATERIALS
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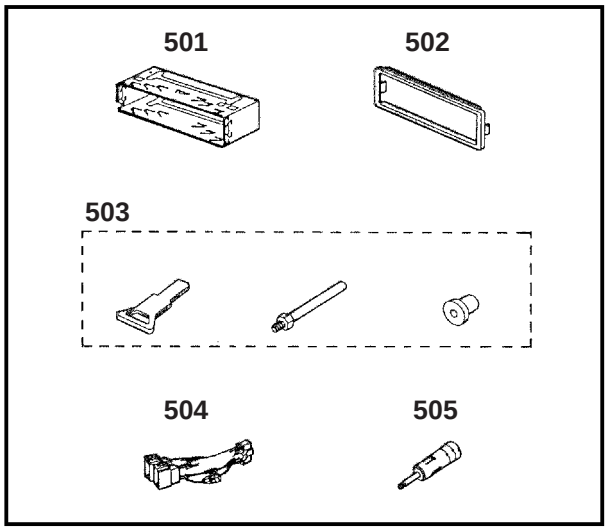
	X-3373-617-1	CASE ASSY (for FRONT PANEL)			
	3-862-554-11	MANUAL, INSTRUCTION, INSTALL (DUTCH, SWEDISH)			
	3-862-554-21	MANUAL, INSTRUCTION, INSTALL (GERMAN, FRENCH, ITALIAN)			
	3-862-555-11	MANUAL, INSTRUCTION (DUTCH, SWEDISH)			
	3-862-555-21	MANUAL, INSTRUCTION (GERMAN, FRENCH, ITALIAN)			

****

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
501	3-009-613-21	FRAME	
502	3-932-910-11	COLLAR (CDX)	
503	X-3370-077-1	SCREW ASSY (AE.KEY), FITTING	
504	1-776-527-71	CORD (WITH CONNECTOR) (ISO) (POWER)	
505	1-465-459-21	ADAPTER, ANTENNA	



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9-925-788-11

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MDX-C7890R

SONY

AEP Model

SERVICE MANUAL

SUPPLEMENT-1

File this supplement with the service manual.

Subject: Block Diagrams

9-925-788-81

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Personal & Mobile Communication Company

98C0541-1
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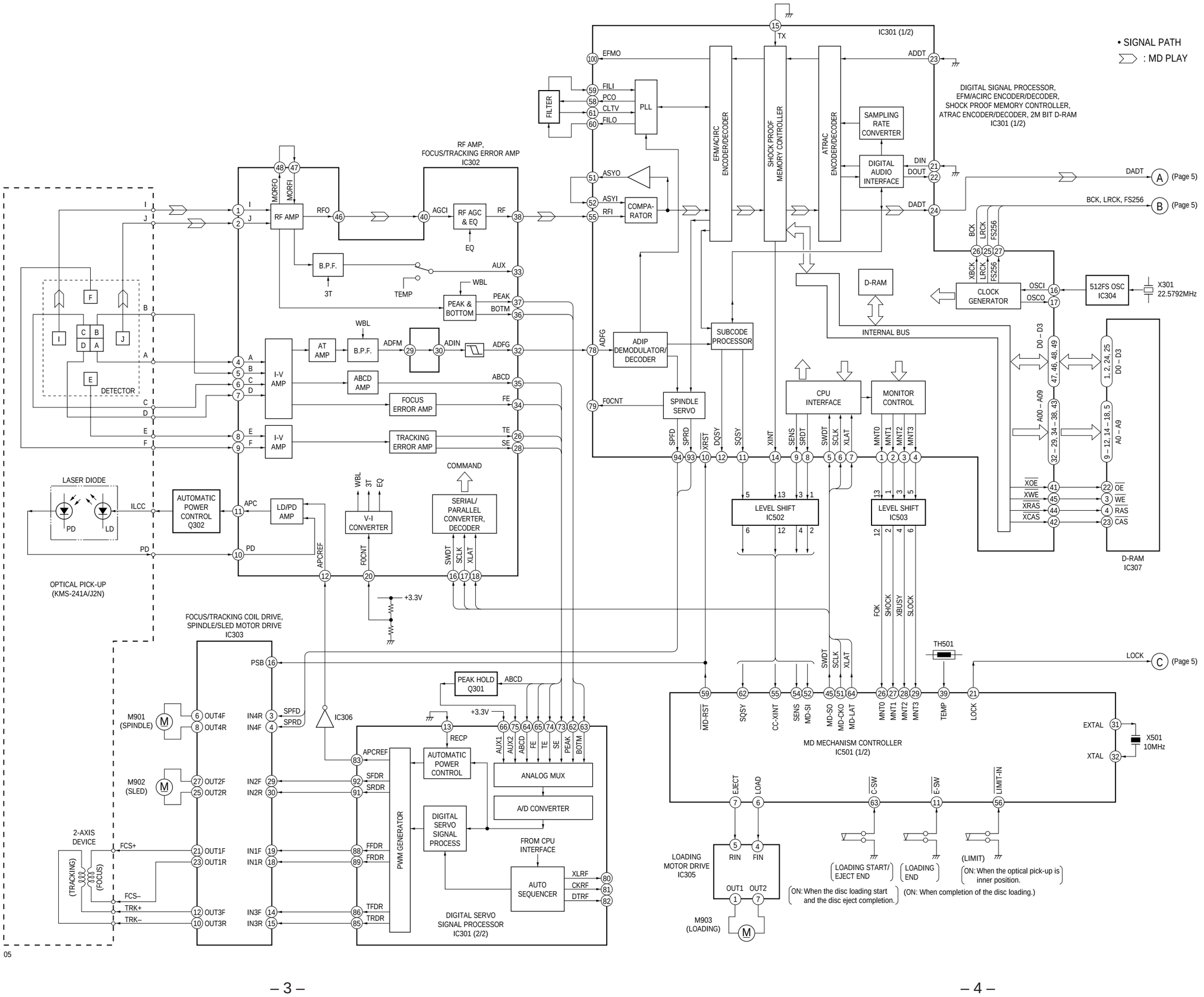
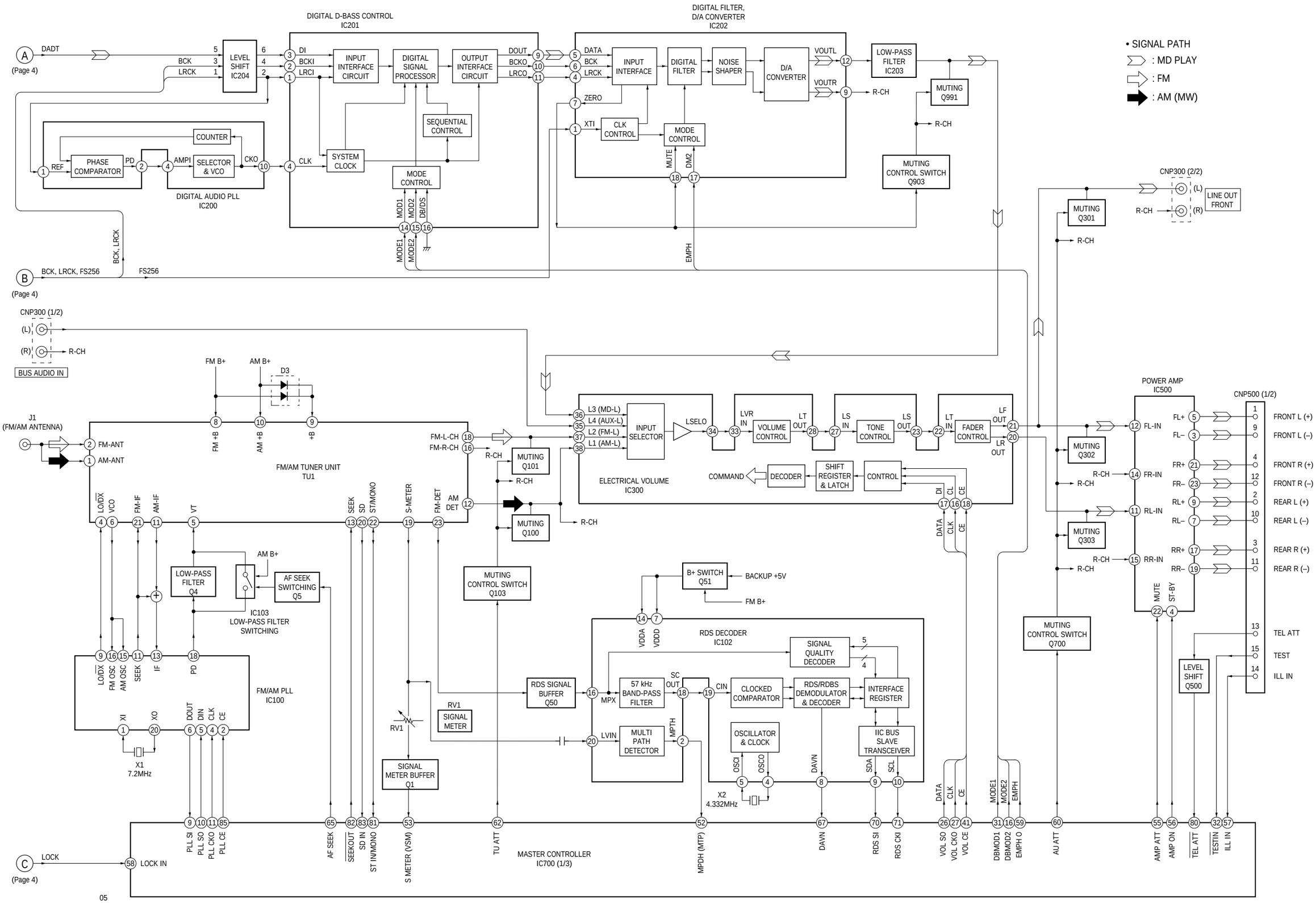
BLOCK DIAGRAMS – SERVO Section –



– MAIN Section –



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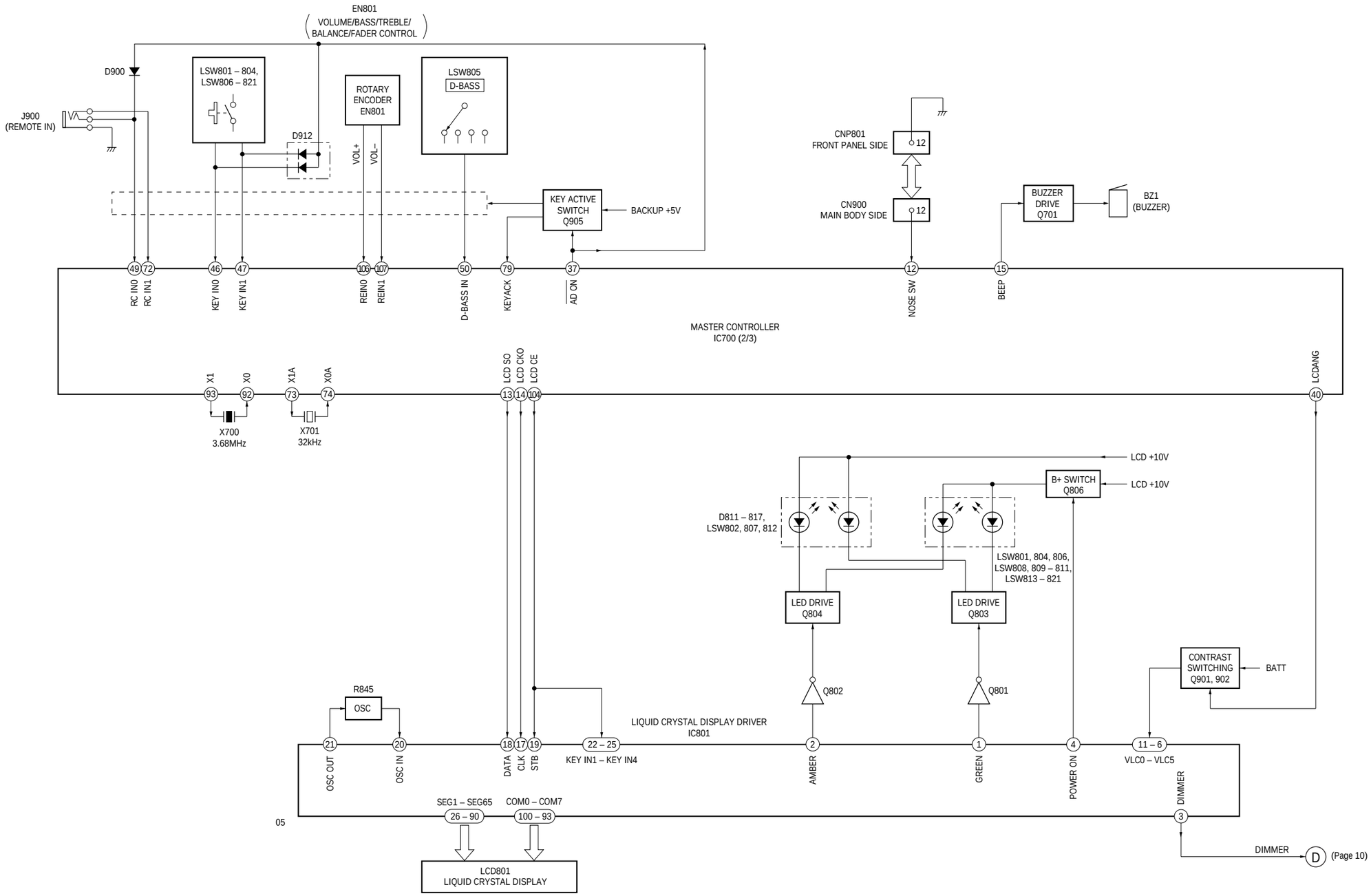
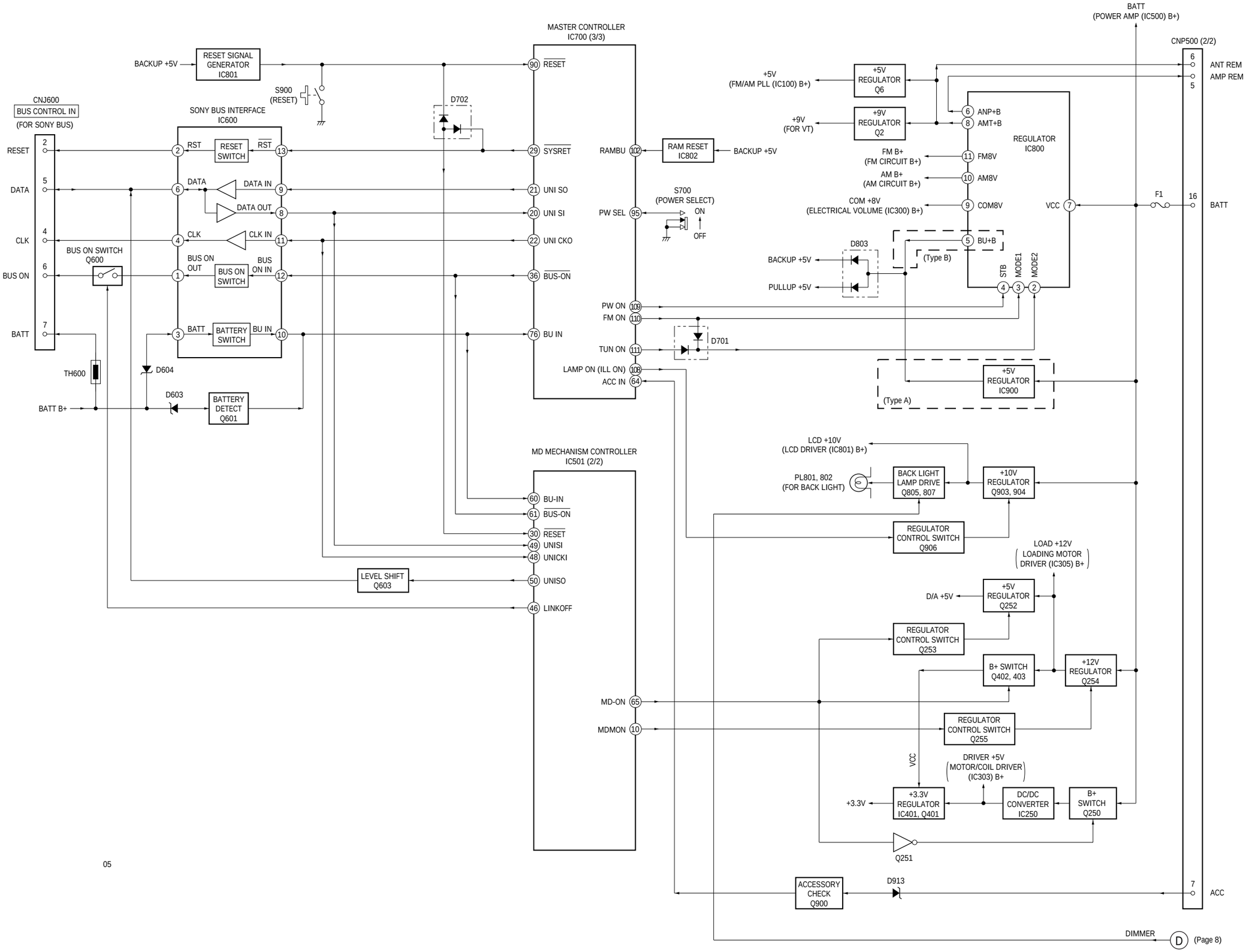
– DISPLAY/KEY CONTROL Section –



– BUS CONTROL/POWER SUPPLY Section –